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ABSTRACT

A research project was conducted to identify a framework that would provide the most effective and efficient ways of delivering inservice training and professional development services in Colorado. The project consisted of a survey of part- and full-time vocational education teachers and administrators of secondary, postsecondary, and vocational schools in Colorado and extensive on-site interviews with persons participating in professional development activities. The survey responses indicated a genuine concern about and dissatisfaction with the conditions of professional development activities in Colorado. The following conclusions were reached: responsibility for providing leadership and direction of professional development activities should rest with the State Board for Community Colleges and Occupational Education, special attention must be given to rural areas, new teachers need better access to and increased assistance from teacher trainers, and the current system of evaluating the quality of professional development activities needs to be revised. (Appendixes to this report include the vocational education teacher and administrator survey instruments, detailed reports of responses to individual survey questions, an outline of recommendations, and recommended recredentialing requirements.) (MN)

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EXCELLENCE IN OCCUPATIONAL EDUCATION:

A MODEL FOR PROFESSIONAL DEVELOPMENT TRAINING

Report submitted to
State Board for Community Colleges
and Occupational Education

September 1986

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INTRODUCTION

This study was commissioned by the State Board for Community Colleges and Occupational Education (SBCCOE) to evaluate the existing delivery system of professional-development activities provided for vocational-education personnel in Colorado and to offer specific recommendations for improvement.

Rapidly changing technologies, increasingly vocal demands for excellence in public education, and declining resources have placed a growing burden on the delivery system for professional-development activities. Our examination of the effectiveness and efficiency of this system is intended to allow and better equip Colorado's dedicated teachers and administrators to meet these challenges. These teachers and administrators--and the students and citizens they serve--deserve a delivery system that recognizes and answers their needs. Throughout the state, we found that their commitment to quality education, sometimes in the face of hardships, should inspire a like commitment on our part to further and improve their professional-development.

In requesting this study, SBCCOE specifically called upon us not only to make recommendations for improving professional-development activities but also to identify alternative methods for providing these activities and related services. In other words, our charge extended to considering how doing things differently might result in doing them better. In meeting this requirement, we necessarily had to question the status quo. Where our recommended approach departs from current practice, it does so with the full realization that change is often resisted and can be difficult to implement. However, failure to change when circumstances warrant can lead to even greater difficulties and hardships in the future. Here, as in all endeavors, quality is most at risk when little scope is allowed for improvement or change.

Our purpose in this study has not been to criticize past approaches but to consider how today's challenges and those of the future can best be met. Moreover, we wish to emphasize that the focus of this study is on the delivery system, the constituencies served, program structure and content, and delivery roles--not on evaluating personnel either individually or collectively.

RESEARCH METHOD

Two premises informed the research project. The first is that in-service education programs ought to be based on realistic views about the needs of the clientele served. The second premise is that such programs should pursue realistic performance objectives. That is, objectives should be consonant with the fiscal facts of life and should strike a sensible, fair balance between client

aspirations for professional-development and the state's objectives, established in the light of the public interest.

The research method employed in the study called on both quantitative and qualitative approaches. Three surveys and extensive site visits and interviews enabled the researchers to confirm perceptual evidence through statistical means and to amplify survey information through insightful comments from respondents. Both methods, in short, provided valuable perspectives that proved to be mutually reinforcing.

In addition, we sought to place Colorado's system in a broader context by examining approaches other states have taken to the delivery of professional-development activities. Knowledge of other state systems enhanced our ability to assess Colorado's system and to consider possible alternative delivery methods. Although Colorado's needs certainly differ from those of other states, it is imperative that SBCCOE have information on how other state systems function if it is to make informed decisions.

RESEARCH AGENDA

The research agenda for this study, as outlined in the RFP, was organized into two phases. Phase one set the national context for interviews about Colorado's delivery system with the staff of SBCCOE and the vocational-education departments at the University of Northern Colorado (UNC) and Colorado State University (CSU). Phase two involved an in-depth assessment of the delivery system and the development of specific recommendations for its improvement.

PHASE ONE

Three activities were undertaken during phase-one of this project. First, a national survey was conducted of other state boards to determine how they provide for professional-development activities. Second, the research team visited three states--Arkansas, Ohio, and Illinois--to study their delivery systems, considered exemplary in a number of respects. Third, interviews with SBCCOE staff and faculty at the University of Northern Colorado and Colorado State University provided considerable insight into the status of professional-development in Colorado and how change might affect the current delivery system and delivery roles.

A report on these phase-one activities was submitted to SBCCOE on June 30, 1986. The national survey indicated that, in many states, occupational education and professional-development activities are undergoing considerable transformation. Colorado is by no means alone in the problems it faces or in its willingness to consider systemwide change. Visits to three states drew attention to both the rewards and the difficulties of extensive change and as well to specific positive features in

their respective systems. These site visits confirmed, however, that solutions cannot be imported but must be developed to meet Colorado's specific needs. Our interviews with leading actors in Colorado's system allowed us to articulate specific questions and concerns, which were then followed up in phase-two.

PHASE TWO

During phase-two, the research team conducted surveys of vocational-education teachers and administrators throughout the state. As was the case with the national survey in phase-one, these teacher and administrator surveys were developed and approved in conjunction with SBCCOE staff. The surveys focused on identifying individuals' specific inservice needs and the types of activities that would best meet these needs. In addition, the survey also posed open-ended questions that allowed respondents to articulate problems and needs in their own language.

The teacher survey was sent to a stratified random sample of 550 teachers and counselors (approximately 20 percent of such teachers and counselors in the state). The survey was returned by 226 respondents, yielding a 41 percent response rate. The 226 respondents comprise about 8 percent of all teachers and counselors in the state. The administrator survey was sent to a stratified random sample 100 vocational program administrators (approximately 60 percent of such administrators in the state). These surveys were returned by 62 respondents for a 62 percent response rate. The 62 respondents comprise about 38 percent of all vocational program administrators in the state.

In addition, researchers also conducted extensive on-site interviews in all geographic regions of Colorado with the primary constituents or "audience" of professional-development activities. The interviews lasted for at least one-half hour, with some lasting for as long as two hours. Ranging from individual conferences to group meetings of five to fifteen people, these interviews concentrated on the needs of vocational educators and how they could best be met. In total, the research team interviewed more than 200 people. Although we do not contend that people's perceptions of problems form reality in its entirety, research has shown that individuals' comments can lend exacting insight about how one should analyze problems and derive conclusions.

Based on extensive quantitative and qualitative information, findings and conclusions were then summarized. The recommendations of the research team address these findings and offer for consideration a detailed plan for improving the delivery of professional-development activities. While there may be disagreement about the direction of the recommendations offered or the details of the plan we propose, we believe that the findings and conclusions provide an accurate description of the condition of the state's delivery system and accurately reflect a widespread

desire on the part of constituents for constructive, systemwide change.

In conjunction with this Executive Summary, the research team has submitted to SBCCOE an extensive report of phase two activities, research findings, and recommendations. In addition to a detailed description of the proposed plan, the report also summarizes survey and interview results. Extensive appendices offer the reader actual survey instruments and the comments of respondents to open-ended survey questions. We urge those interested in the project and the recommendations offered by the research team to read the full report.

FINDINGS AND CONCLUSIONS

The survey responses we received from vocational teachers and administrators and the interviews we conducted across the state indicated a genuine concern about and dissatisfaction with the condition of professional-development activities in Colorado. The following points summarize research findings:

1. Throughout the state, vocational teachers, vocational administrators, local district administrators, and personnel at SBCCOE generally felt that professional development lacked adequate leadership and direction from SBCCOE.

2. Vocational teachers and administrators throughout the state generally felt that their professional-development needs were not being met.

3. Professional-development and recredentialing plans do not appear to be taken seriously by a large percentage of vocational teachers and administrators in the state. Moreover, the data suggest that as many as half of the full-time vocational teachers in the state may not have written professional-development plans.

4. Throughout the state, vocational teachers and administrators were generally critical of the professional-development activities offered by SBCCOE, CSU, and UNC. With few exceptions, activities were generally viewed as redundant, outmoded, irrelevant, and/or of little practical value.

5. With few exceptions, vocational teachers in rural locations had access to significantly fewer professional-development opportunities than those located in metropolitan areas.

6. Throughout the state, directors of vocational-education programs in secondary schools and community colleges generally felt that existing professional-development activities were not meeting their needs. This feeling was particularly strong in rural areas.

7. Throughout the state, vocational educators and administrators often felt they had no one with whom to speak at SBCCOE about ideas or concerns for professional-development. They primarily attributed this problem to frequent changes in SBCCOE staff and in their responsibilities.

8. The Colorado Vocational Association Summer Workshop received mixed reviews from both educators and administrators. While many survey respondents and interviewees felt the workshop was worthwhile, the majority felt that it was of little value--particularly educators and administrators in the postsecondary sector.

9. Throughout the state, teachers felt they knew what their professional-development needs were, and how to meet them. Meeting these needs hinged on (1) increased support from their schools--including a commitment to professional-development as well as increased financial support; and (2) availability and ready access to appropriate professional-development activities.

10. Throughout the state, educators and administrators reported the need for professional-development activities that focused on improving instructional methodology. They also reported a strong and generally unmet need for activities that focused on upgrading specific technological skills.

11. The majority of educators we spoke with either did not use or were unaware of the curriculum library at CSU. Those who had used the library generally felt that it did not meet their needs because of logistical problems--specifically the difficulty of identifying and obtaining relevant, up-to-date materials.

12. Throughout the state, there is a strong belief among educators and administrators that many local instructors at community colleges and individuals in the private sector could do (and have done) a better job of delivering professional- development activities than faculty at CSU and UNC.

13. Throughout the state, the itinerant teacher trainers were generally viewed positively. The major criticism with respect to their efforts concerned the limited amount of time they had to spend with any one individual.

14. The majority of educators and administrators we spoke with felt that meaningful evaluation of in-service activities did not take place. Their judgments were based on their perceptions that no matter how poorly activities were rated, they seldom changed.

15. Throughout the state, the preferred location of teachers and administrators for professional-development activities was in their immediate locale or region.

As summarized above, our research findings lead to a set of general conclusions about professional-development activities in Colorado and about general directions for change and improvement. The detailed recommendations we offer in the phase-two report attempt to reflect and address these general conclusions. The following summarizes the conclusions reached by the research team:

1. The responsibility for providing leadership and direction of professional-development in Colorado should rest with SBCCOE.

2. SBCCOE must make extensive changes if it is to achieve a quality delivery system for vocational educators in the 1980s and beyond. In short, an overhaul of the current system must occur.

3. The primary problem with the delivery of professional-development by SBCCOE is that no one person or division at the agency is responsible for the development and implementation of a coordinated statewide effort.

4. One of the most important criteria for judging the effectiveness of SBCCOE's current or future delivery system should be the extent to which it meets the needs of all its different constituencies in the state.

5. Vocational educators in rural communities have the greatest need for professional-development opportunities, yet are currently the most poorly served constituency.

6. Current recredentialing requirements do not improve instructor quality.

7. SBCCOE has done a poor job of coordinating its professional-development efforts with other state and local educational agencies.

8. New full-time and part-time teachers need better access to, and increased assistance from, teacher trainers.

9. Technological and methodological updates are urgently needed by a significant number of teachers in the state.

10. Qualified in-service instructors are available at the local and regional level at costs that are less than those charged SBCCOE by the universities (CSU and UNC).

11. The current system of evaluating the quality of professional-development activities is inadequate.

12. The curriculum library at CSU is not meeting the needs of the majority of educators in the state.

SUMMARY OF RECOMMENDATIONS

After six months of research and fieldwork, national and state surveys, and interviews with a wide array of constituencies, we feel confident that the comprehensive model presented in the final report will provide Colorado with an effective and efficient program for the professional-development of vocational educators. Although some issues are similar to those other states must confront, Colorado's problems--and consequently answers--are unique. For example, the geographic diversity of the state demands the creation of a delivery system that addresses the needs not only of educators in the metropolitan area, but also in communities such as Lamar, Haxtun, and Durango. For Colorado's delivery system to be effective, it must meet the needs of diverse constituencies. The proposed delivery system addresses such issues and provides a context for service delivery that is both cost-effective and educationally sound.

In developing this model we have worked from several assumptions. First, the responsibility for providing the leadership and direction for professional-development activities should rest with SBCCOE. Second, in-service activities should not be offered if they do not have quantifiable objectives attached to them. That is, professional-development activities should not simply be bureaucratic hoops that a teacher must jump through in order to pile up recredentialing credits. Teachers are far too busy to fill up their time with efforts that amount to little more than marks on a checklist. Third, while we recognize that different disciplines have unique needs, we believe that the rigid segmentation of disciplines is neither cost-effective nor necessary. Vocational educators have many similar technological and methodological needs that must be met. The proposed model meets these generic needs while also providing for specific needs.

The recommendations detailed in the final report address the five essential components for providing quality professional-development: the delivery-system framework, constituencies served, program structure and content, delivery roles, and evaluation. The following paragraphs comment on the general direction taken in these recommendations. Before forming judgments about the proposed model, readers are urged to consult the detailed discussion offered in the final report.

DELIVERY-SYSTEM FRAMEWORK

The primary problem with the current delivery system is that no one person is in charge of the overall framework for professional-development . The intent of the recommendations is to promote greater leadership and coordination. Specifically, we propose that a full-time Director of In-Service and a part-time Assistant Director be appointed. They would work with an Advisory Board, regional representatives, and a roster of senior resource teachers. To improve coordination, the credentialling office and curriculum library would be operated by the State Board, with CSU utilized to approve credits. To improve access, regional centers would be established in Fort Collins, Denver, Pueblo, and Grand Junction/Durango, with community colleges being the likely regional subcontractors. Under the direction of the Director of In-Service, services would be contracted out on an RFP basis. The intent of our recommendations is to promote the excellence and innovation that can be stimulated by open and fair competition.

CONSTITUENCIES SERVED

The proposed model addresses the need to improve service to constituencies that have in the past been neglected and underserved. For example, although only about nine percent of SBCCOE's audience is located outside the front range, these rural educators, administrators, and superintendents are in the greatest need of expanded professional-development. The model also addresses the needs of part-time and new teachers and those of a variety of new audiences that have emerged as occupational education has developed over time. Throughout the recommendations, we have operated under the assumption that local educators and administrators are in the best position to know what their needs are and how best to meet them.

PROGRAM STRUCTURE AND CONTENT

Due to a variety of different needs on the part of vocational teachers and administrators, the research team recommends that six different content areas be established for professional-development. Activities associated with these content areas would be established as follows:

- Regional workshops, whose content would be method based.
- A statewide workshop, whose content would be based on leadership issues and current trends.
- Catalog or workshops that would address local issues and needs.
- Specified constituency workshops that would be offered on a statewide basis to meet the needs of diverse groups of educators and administrators.
- Course offerings, based on Performance Based Teacher Education modules.
- Technological update, whose content would be functionally based and whose emphasis would be on the transfer of new experience to the classroom.

Recredentialing requirements would be met through a combination of the above activities and content areas. For a detailed discussion of program structure and content and recredentialing requirements, the reader is urged to consult the full recommendations in the final report.

DELIVERY ROLES

A key component of our recommendations is that the Director of In-Service utilize all available qualified instructors at the lowest cost to SBCCOE for all workshops. Whereas the universities were once the sole providers of SBCCOE in-service activities, we advocate the contracting out of services on a competitive basis. We believe this approach will enhance the quality of professional-development activities and promote a healthly regionalism that will help overcome many geographic barriers to equal access.

EVALUATION

The recommendations detailed in the final report seek to remedy what many educators perceive as a lack of effective evaluation. The Director of In-Service, in conjunction with the Advisory Board and professional organizations, will coordinate an effective evaluation program. Every workshop and course will be evaluated and a number of systemwide "vital signs" will be identified and monitored. Moreover, senior resource teachers will observe educators to look for competencies that should be provided through workshops and courses and recommend changes in those workshops and course as necessary. In addition, our recommendations for planning call for the close integration of evaluation when future activities are discussed.

CONCLUSION

Four key concepts capture the major thrusts of the above recommendations and serve to summarize how we propose that deficiencies in Colorado's professional-development programs be remedied:

- o Improved leadership
- o Enhanced statewide coordination
- o Greater regionalism
- o Open, competitive delivery of service

We believe the proposed model provides quality professional-development in distinct competencies to diverse constituencies in as convenient and meaningful a manner as possible. The research team recognizes that professional-development is not a panacea to the many problems that confront vocational educators in the next decade. However, a model based on improved communication, effectiveness, and efficiency provides a good foundation from which to address the challenges that await us.

EXECUTIVE SUMMARY

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INTRODUCTION

The purpose of the research project is to recommend a framework that provides the most effective and efficient ways to deliver in-service training and professional-development services in Colorado. The project, whose term ran from March to September, 1986, called for the submission of two reports.

An interim phase-one report, submitted in June 1986, outlined the results of a national survey, discussed three different responses by state systems to professional development, and contrasted those responses to Colorado's system.

This is the second and final report required of the research team for submission to the State Board for Community Colleges and Occupational Education (SBCCOE). As required by the Request for Proposal (RFP), the specific objectives for this phase of the project are:

(1) Examine Colorado's in-service and professional development activities and the process used in contracting for these and related services.

(2) Make recommendations for the most effective and efficient delivery of in-service professional development activities and related services.

(3) Develop a plan for evaluating the effectiveness and efficiency of each proposed alternative.

We have divided the research report into two parts. Part 1 outlines the research agenda undertaken in order to examine Colorado's professional training and summarizes the team's research findings. Part 2 recommends a framework and plan for delivering professional development activities in Colorado, and for evaluating their effectiveness and efficiency.

PART I: PHASE-TWO REPORT

1. RESEARCH AGENDA

Part 1 of this paper reports on three activities undertaken during phase-two of the research project. First, we conducted a survey of part-time and full-time vocational education teachers in secondary and postsecondary schools in Colorado. Second, we conducted a survey of administrators of secondary, postsecondary, and vocational schools. Third, we conducted extensive on-site interviews with the primary constituents, or "audience," for professional-development activities.

Each activity also entailed the identification, acquisition, and review of a wide variety of written documents pertinent to the research objectives. These documents have been submitted to the SBCCOE in conjunction with this report.

The survey instruments for vocational administrators and the vocational teachers were developed in the offices of the National Center for Higher Education Management Systems (NCHEMS). Their content was based on the information requirements specified in the RFP and on previous research instruments that have been successfully utilized for similar studies. Before we distributed the surveys we provided drafts to the executive management teams at NCHEMS and SBCCOE for comments and suggestions. The resulting instruments are included in this report as Appendixes A and E, respectively.

The intent of the interviews was both to inform and extend the results of the state surveys. The interviews focused on identifying the professional-development needs of vocational educators and administrators and the extent to which these needs have been met by past and current professional development efforts. Interviewees included part-time and full-time secondary and postsecondary vocational program administrators, community-college administrators, and community-based-organization (CBO) personnel throughout the state.

2. THE VOCATIONAL-EDUCATION TEACHER SURVEY

In accordance with our proposal to SBCCOE, we developed a survey that requested information concerning:

(1) the respondent's area of expertise

(2) the types of professional-development activities participated in since January 1985

(3) subject matter covered

(4) adequacy or quality of development activities

(5) current and future development needs

(6) preferred delivery method

Our proposal identified three additional topics that would be included in the survey: (1) the sponsor of each professional-development activity each respondent participated in, (2) the location, and (3) the cost. However, the research team and SBCCOE Executive Committee decided that this information would exceedingly complicate the survey and be of limited utility.

In accordance with the proposed "Timeline of Activities," a draft version of the survey instrument was submitted to the SBCCOE Executive Committee for review and comment during the first week of May. The instrument was approved for use by the committee with minor revisions. The revised survey was mailed to a representative sample of vocational-education teachers on May 16th. The survey instrument is included as Appendix A.

The survey was sent to a stratified random sample of 550 Colorado vocational-educational teachers and counselors--roughly 20 percent of such teachers and counselors in the state. The sample was stratified by (1) type of school--secondary, postsecondary; (2) teacher workload--full-time, part-time; and (3) general area of expertise--technical education, trade and industrial education, business and office education, agricultural education, marketing and distributive education, home economics, special needs, guidance, health education.

Questionnaire Results

The survey was returned by 226 respondents, yielding a 41 percent response rate. Respondent characteristics (that is, secondary versus postsecondary, and full-time versus part-time) are reported in table 1. The 226 respondents comprise about 8 percent of all vocational-education teachers in the state. More specifically, the respondents in the full-time secondary and postsecondary categories represent about 10 percent of the total number of teachers in each category in the state. Part-time respondents comprise about 2 percent of the total number of part-time teachers in the state.[1] While the respondents comprise a relatively small proportion of the total population of vocational-education teachers (about 8 percent), it is sufficiently large to conclude that estimated statistics will be within plus or minus 10 percent of what the actual population statistics would look like if they were available. The following text provides brief descriptions of the results for the remaining questions.

Question 4: How many years have you been teaching in a vocational education program?

Categories	Percentage of Total Responses
1-2 years	7
3-5 years	17
6-10 years	23
11 or more years	53

The percentages in the above table indicate that more than half of the vocational teachers in the state have been teaching for 11 or more years. This statistic suggests two interesting, but potentially antithetical, scenarios. On the one hand, the students in this state seem to have the benefit of teachers with many years of teaching experience. On the other hand, if these teachers have not kept up with the state of the art in their field of specialization, or new methods of instruction, or both, the students and the state are paying a heavy price. Our interviews with teachers and administrators suggest that both scenarios occur with about equal frequency.

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[1]Estimates are based on the number of teachers reported in the January 1986 SBCCOE mailing labels files. This file was also used in selecting teachers for the study sample.

Question 5: What types of professional-development activities have you participated in during the last two years?

Categories	Percentage of Total Responses
Update of occupational skills-- internships in industry, business, etc.	27
Conventions or conferences	80
In-house workshops or seminars	73
Correspondence courses	7
Independent studies	17
Courses at community college	28
Courses on university campus	45
Off-campus university courses	52
On-site teacher visitation	25

The numbers in this table indicate that (a) conventions or conferences, and (b) in-house workshops or seminars are the most frequently utilized forms of professional-development. At the same time, however, the data also indicate that only one-fourth of the sample sought to enhance their skills through internships or work-experience in business and industry. While this may not be cause for concern, it supports the negative scenario described in reference to the previous question.

Question 6: Do you have a written professional-development plan?

In reviewing the responses to this question it seems critical to point out that in Colorado, vocationally credentialled education teachers are required by state law to develop a professional-development plan with their local administrator. Thus, we were somewhat surprised to learn that more than half of the respondents (57 percent) indicated that they did not have a written professional-development plan.

We thought that including part-time teachers as well as combining secondary and postsecondary teachers in the same analysis might be clouding the results. To deal with these potential problems we excluded part-time teachers from the analysis and then ran it separately for secondary and postsecondary teachers. The data indicated that (1) about two-thirds (65 percent) of full-time secondary teachers do not have professional-development plans; (2) more than half (56 percent) of postsecondary teachers do not have professional-development plans.

Question 7: Please rate the general utility of the following types of professional-development activities using the scale shown below. Leave an item blank if you have not had experience with the activity listed.

Scale:

1. Very useful	4. Useless
2. Useful	5. Very useless
3. Mediocre	

Activity	Number of Respondents Rating Item	Percentage of Respondents Rating Item 1 or 2
1. Internships in industry	123	89
2. Conventions or conferences	207	80
3. In-house workshops or seminars	196	72
4. Correspondence courses	76	21
5. Independent studies	103	65
6. Courses at community college	124	77
7. Courses on university campus	159	84
8. Off-campus university courses	164	84
9. On-site teacher visitation	104	70

The data in the second column indicate the number of respondents who rated each activity. The data in the third column indicate the percentage of respondents in column 2 who rated the activity either "very useful" or "useful." On the more positive side, the data suggest that all the activities, with the exception of correspondence courses, were generally found to be useful. On the more negative side, the data in column 2 indicate that only 123 of the 226 respondents (or 54 percent) had participated in internships in industry. That is, the data suggest that almost half the respondents to the questionaire (46 percent) have not had formal work experience-training in their respective fields since they became teachers. However, it seems essential to point out that this number may be inflated, since teachers may have worked in their respective fields, but not in a formal internship setting.

Question 8: Please describe the best professional-development activity in which you ever participated.

The majority of respondents answered this question by citing a specific workshop, seminar, class, or conference in their area of instruction (for example, in auto mechanics, computers, electronics, career development, human relations, and so on). About 15 percent of respondents cited internships in industry and work experience. The Colorado Vocational Association (CVA) Summer Workshop was cited by 6 percent of respondents.

The responses to this question imply that the most valuable professional-development activities are those targeting specific groups and covering specific technological and instructional topics.

Question 9: Please describe the worst professional-development activity in which you ever participated.

One-third of the respondents did not answer this question, or said that none of the activities they participated in were bad. The remainder cited a specific conference, seminar, workshop, lecture, and so on. In-house workshops and the CVA Summer Workshop were cited by 8 percent of respondents.

Question 10: Please allocate 100 points to the following professional-development activities according to your professional-development needs.

Activity	Mean	S.D.
Instructional methodology	35	20
Technical update	46	23
Administrative skills	32	23

There was a wide range of responses to this question. However, based on sample statistics, respondents' first priority was for technical update (46 percent), followed by instructional methodology (35 percent) and administrative skills (32 percent).

Question 11: Please describe the three topics that could be covered by professional-development activities that would most benefit you.

The responses to this question were extremely varied--respondents cited more than 75 distinct topics. A complete list of these topics is provided in Appendix B. At the same time, however, there were a handful of topics that were cited by a relatively large number of respondents. These included: curriculum development and planning (35 percent); student evaluation and grading (16 percent); technical skills update (14 percent); student motivation and learning (11 percent); microcomputer skills and classroom applications (10 percent); instructional techniques, strategies, and methodology (7 percent).

Question 12: Please describe the factors that you believe contribute most to the success of professional-development efforts.

Respondents cited more than 40 unique factors. A complete list of these factors is provided in Appendix C. Again, there were a handful of factors that were cited by a relatively large number of respondents. The most frequently cited factor (53 percent) centered on planning and the quality of instruction. Other descriptors of this factor included: activity organization and

goals; stimulating presentations; instructor sensitivity, expertise, knowledge of the topic, communication skills, enthusiasm, and experience.

The second most cited factor (24 percent) concerned the relevance and practicality of activities to the classroom setting. Other frequently cited factors included: hands-on learning opportunities (10 percent); participant involvement and idea sharing (8 percent); and input from participants in determining workshop activities (7 percent).

Question 13: When do you most prefer that professional-development activities be offered? (Circle one)

Time Preferred	Percentage of Total Responses
No preference	31.4
Fall	16.8
Winter	13.7
Spring	5.3
Summer	19.5
No response	13.3

It is interesting to note that about one-third of respondents (31.4 percent) have no preference regarding when professional-development activities are offered. Conversely, spring is the least desirable time for professional-development activities.

Question 14: When do you prefer that professional-development activities be held? Please rank-order the following list.

Time Preferred	Percentage of Respondents Checking Option, or Rating Option 1 or 2
Weeknights	43
Before school	12
After school	34
Weekends	29
School holidays	14
No preference	16

Interpreting the responses to this question poses some difficulty. First, on average, about half of the respondents did not rate one or more options. Second, about eight percent of the remaining respondents simply checked options rather than rate them. With these problems, there is no simple way of interpreting the data. We addressed the problem by reporting the percentage of respondents who either checked an option, or rated it first or second. By these criteria, the most desirable time for professional-development activities is weeknights (43 percent). The least desirable time is during school holidays (14 percent).

Question 15: Where do you prefer that professional-development activities be held? Please rank-order the following list.

Location Preferred	Percentage of Respondents Checking Option, or Rating Option 1 or 2
University campus	10
Regionally	38
Denver	16
In-house	46
Locally	61
No preference	6

The responses to this question are also difficult to interpret. On average, forty percent of respondents did not rate one or more options. About eight percent simply checked options rather than ranking them. Again, we addressed the interpretation problem by using the same procedure as in question 14: the numbers in the table above reflect the percentage of respondents either checking a given option, or rating it first or second. By these criteria, the most preferred location for professional-development activities is in the respondents local area (61 percent). This is followed by a preference for in-house (46 percent) and regional (38 percent) activities. The university campus is the least desirable location (10 percent) for those who expressed a preference in terms of the criteria employed.

Question 16: Please note any additional comments, concerns, or criticisms you have about professional development efforts.

About 100 respondents wrote comments on their survey. A list of non-redundant comments is included as Appendix D. The comments capture the concerns and needs of educators in their own language. We urge the reader to consider them carefully.

3. VOCATIONAL-EDUCATION ADMINISTRATOR SURVEY

In accordance with our proposal to SBCCOE, we developed a survey that requested information concerning:

(1) areas in which professional-development activities are being offered

(2) vocational-educator development needs

(3) vocational-administrator development needs

(4) preferred delivery methods

In accordance with the proposed "Timeline of Activities," a draft version of the survey instrument was submitted to the SBCCOE Executive Committee for review and comment during the first week of May. The instrument was approved for use by the committee with minor revisions. The revised survey was mailed to a representative sample of vocational-education administrators on May 16th. The survey instrument is included as Appendix E.

The survey was sent to a random sample of 100 administrators. This was almost 60 percent of the current list of "Local Vocational-Education Directors" in the state.

Questionnaire Results

The survey was returned by 62 respondents, yielding a response rate of 62 percent. The respondents represent about one-third (37 percent) of the current list of local directors in the state. The relatively high response rate allows us to be certain that estimated statistics are well within plus or minus 10 percent of what the actual population statistics would look like if they were available. The following text provides brief descriptions of respondents' answers to each question.

Question 1: In what type of school do you work?

Type	Percentage of Respondents
Secondary	77
Postsecondary	16
Area Vocational Schools	6

The proportion of respondents in each category of the sample are very close to those in the population--approximately 82 percent in secondary schools, 14 percent in postsecondary schools, and 4 percent in area vocational schools.

Question 2: How many years have you served as an administrator for vocational-education programs?

Categories	Percentage of Total Responses
1-2 years	16
3-5 years	18
6-10 years	19
11 or more years	47

The percentages in this table suggest that almost half of the administrators (47 percent) in the state have eleven or more years experience. This statistic suggests two interesting, but potentially antithetical, scenarios. On the one hand, vocational-education teachers and students in the state seem to have the benefit of administrators with many years of experience. On the other hand, if these administrators are not supportive of professional-development, or are weak in their ability to assist their staff in their professional-development, or both, then both students and teachers are paying a heavy price. Our interviews with administrators suggest that both scenarios occur with about equal frequency.

Question 3: Are you a vocationally credentialled administrator?

Response	Percentage of Total
Yes	44
No	56

The relatively high proportion of administrators that are not vocationally credentialled (56 percent) is not cause for concern in and of itself. However, it does suggest that the majority of administrators in the state may have a difficult time in understanding or relating to the needs of vocational educators.

Question 4: Do each of your full-time vocational-education teachers have a written professional-development plan?

Response	Percentage of Total
Yes	44
No	48
Maybe	6
No response	2

About half the administrators in the sample indicated that their vocational-education teachers did not have written professional-development plans. Renewal of a credential does not generally require a professional-development plan. However, prior approval is required for all renewal credit. In order to obtain further insight into these responses the data were broken-out separately for administrators in secondary and postsecondary schools:

		Type of School	
		Secondary	Post-Secondary
Staff Professional-Development Plan	Yes	20 42%	4 40%
	No	23 48%	6 60%
	Don't Know	4 8%	

The top number in each cell indicates the number of respondents falling into that cell. The bottom number indicates the ratio or percentage of the top number to the total number of respondents in that column. For example, there are forty-seven secondary administrators in the sample. Twenty-three of these, or 48 percent, indicated that their staff do not have professional-development plans. Similiarly, six of the ten postsecondary administrators indicated that their staff did not have written professional-development plans.

Certainly, educators should have the flexibility to participate in any activities that will improve their skills. However, we learned in our interviews that the lack of professional-development plans often indicated that (1) insufficient attention was being given to professional-development efforts--both on the part of administrators and vocational teachers; and (2) professional-development often took a back-seat to other demands in the educator's life.

Question 5: How do you feel about your ability to help staff develop professional-development plans?

Response	Percentage of Total
Very strong	16
Strong	40
Medium	35
Weak	5
Very weak	3

The responses to this question are both cause for applause and concern. On the one hand, more than half the respondents (56 percent) feel "strong" about their ability to help staff develop professional-development plans. Furthermore, when we broke these figures out by type of school, we found that 26 of the 48 secondary administrators felt they had strong or very strong

ability to assist staff develop professional-development plans. On the other hand, the other half of the administrators in the sample felt they had only marginal faith in their skills to help their staff.

Question 6: Please describe the three topics that could be covered by professional-development activities that would most benefit you in fulfilling your responsibilities as a vocational-education adminstrator.

The respondents cited 35 unique topics. A complete list of these topics is provided in Appendix F. Included among the topics most frequently cited were (1) maintaining current information on state regulations and their interpretation (36 percent); (2) program planning, development, and evaluation (31 percent); (3) budgeting--planning, analysis, management (23 percent); and (4) long range planning and needs assessment (15 percent).

Question 7: When do you personally prefer that professional-development activities be offered. (Circle one)

Time Preferred	Percentage of Total Responses
No preference	39
Fall	13
Winter	15
Spring	2
Summer	23
No response	10

Perhaps the most interesting facet of the responses to this question is that about half the sample (49 percent) indicated that they had no preference or did not respond. This suggests that the majority of administrators are fairly flexible with respect to when professional-development should be offered

Question 8: What is your preferred time for summer professional-development activities? (Circle one)

Time Preferred	Percentage of Total Responses
June	37
July	5
August	21
June & July	11
July & August	19
No response	6

The responses to this question indicate no clear consensus regarding when summer professional-development activities should be offered. The strongest response is for the month of June (37 percent).

Question 9: When do you personally prefer that professional-development activities be held? Please rank order the following list.

Time Preferred	Percentage of Respondents Checking Option, or Rating Option 1 or 2
Weeknights	44
Before school	18
After school	32
Weekends	26
During school holidays	10
No preference	20

Interpreting the responses to this question poses some difficulty. First, on average, about half of the respondents did not rate one or more options. Second, about seven percent of the remaining respondents simply checked options rather than rate them. With these problems, there is no simple way of interpreting the data. We addressed the problem by reporting the percentage of respondents that either checked an option, or rated it first or second. By these criteria, the most desirable time for professional-development activities is weeknights (44 percent). The least desirable time is during school holidays (10 percent).

Question 10: Where do you personally prefer that professional-development activities be held? Please rank-order the following list.

Location Preferred	Percentage of Respondents Checking Option, or Rating Option 1 or 2
University Campus	3
Regionally	70
Denver	17
Locally	61
No preference	6

The responses to this question are also difficult to interpret. On average, about 30 percent of respondents did not rate one or more options. About eight percent of respondents simply checked options rather than ranking them. We addressed the problem of interpreting the data by using the same procedure as in question 9: the numbers in the table above reflect the percentage of respondents either checking a given option, or rating it first or second. By these criteria, respondents clearly prefer that professional-development activities be offered either regionally (70 percent) or locally (61 percent). University campuses appear to be the least desirable location for professional-development activities (3 percent).

Question 11: Please describe the topics that have been covered by professional-development activities at your school during the last two years.

The respondents cited 35 unique topics in answering this question. A complete list of these topics is reported in Appendix G. Included among the more frequently cited responses were: (1) curriculum development and planning (32 percent); (2) classroom management and discipline (10 percent); (3) clinical supervision and teaching (10 percent); and (4) student evaluation and grading (10 percent).

Question 12: In what areas do you believe your vocational-education teachers would most benefit from professional-development activities in the next few years? (Please allocate 100 points)

Activity	Mean	S.D.
Instructional methodology	46	24
Technical skills update	35	22
Administrative skills	20	46

There was a wide range of responses to this question. However, based on simple statistics, administrators believe that vocational-education teachers would most benefit from professional-development activities in the area of instructional methodology (46 points), and then by activities updating technical skills (35 points). We find it interesting that these numbers are just the opposite of what teachers reported. That is, their first priority was for technical-skills update (46 points), and then activities in the area of instructional methodology (35 points). Similiarly, administrators place far less importance on activities geared toward developing administrative skills (20 points) than do teachers (32 points).

Question 13: Please describe the three topics that could be covered by professional-development activities that would most benefit your vocational-education teachers.

Respondents listed 35 unique topics. A list of these topics is shown in Appendix H. Five topics were cited by a least ten percent of all respondents. These included: (1) instructional techniques, strategies, and methodology (33 percent); (2) curriculum development and planning (31 percent); (3) technical skills update (11 percent); (4) student evaluation and grading (11 percent).

Question 14: Please describe the three factors that you believe contribute most to the success of professional-development efforts.

Administrators cited 26 unique factors. A complete list of these factors is included as Appendix I. Five of these factors were

cited by at least ten percent of all respondents. These included: (1) practicality and relevance to the classroom setting (34 percent); (2) good planning, organization, and the quality of instruction (24 percent); (3) input from participants in determining workshop activities (16 percent); (4) timeliness (time during year when offered, 11 percent); (5) personal committment (11 percent).

Question 15: Do you feel that existing requirements for the renewal of a vocational credential improve instructor quality?

Response	Percentage of Total Responses
Yes	56
No	32
No response	12

The responses to this question indicate that slightly more than half the administrators in the sample (56 percent) feel that existing requirements for the renewal of a credential improve instructor quality. About one-third of the administrators (32 percent) feel this is not the case.

Question 16: Please note any additional comments, concerns, or criticisms you have about professional-development efforts.

Only fifteen respondents wrote comments. All reflect very strong concerns. The comments are included as Appendix J.

4. THE STATE INTERVIEWS

The research team held extensive on-site interviews with members of different constituencies. The following groups were included: vocational-education supervisors, vocational-education teachers, personnel in urban and rural settings, full- and part-time teachers, personnel in different regions, and parties such as past presidents of the Colorado Vocational Association (CVA), community-college administrators, and community-based-organizations (CBO) personnel.

The research team visited the cities and surrounding regions of Grand Junction, Durango/Cortez, Pueblo, Trinidad, La Junta, Gunnison, Fort Morgan, Greeley, Colorado Springs, Boulder, Fort Collins, Sterling, and the Denver metropolitan area. Some individuals were chosen for their leadership roles in vocational education, others were chosen at random. All interviews and meetings were prearranged and conducted on-site. The interviews took place in a variety of formats. Interviews lasted for at least one-half hour, and some interviews lasted for as long as two hours. Interviews ranged from individual conferences to group meetings of five to fifteen people. In all, the research team spoke with more than two-hundred people.

The interviews concentrated on the needs of vocational educators and how they could best be met. The research team believes that intensive interviews enable thorough analysis and understanding of survey data. The purpose of conducting interviews throughout the state with several different constituencies was to gather as objective a data source as possible. That is, if we had spoken only with individuals located in the Denver area, for example, or only with vocational "leaders" in the state, we would have missed several important observations from different constituencies. Moreover, interviews were open-ended so that the interviewees could lead the discussion and provide their own analysis of professional development and training, rather than respond to the interviewer's opined conclusions. The basic assumption guiding such a methodology is that individuals who are interviewed can provide critical perceptions about a research problem.

Although we do not contend that people's perceptions of problems form reality, we do believe that individuals have important comments that lend exacting insight about how one should analyze problems and derive conclusions. Eventually, through inductive and deductive methods, categories form that guide the research agenda. The five categories that follow provide information about how different constituencies perceived professional-development activities.

Delivery System Framework

Consistently, respondents noted how they felt a lack of leadership and direction from any state organization, particularly SBCCOE. Virtually everyone noted how constant staff turnover at the state board produced a sense of frustration. Interviewees spoke of how they had no one with whom to speak about ideas or concerns for professional development and training. The farther one was from Denver, or the fewer vocational colleagues in a particular school, the greater the sense of isolation and the inability to perceive the worth of in-service training.

Professional-development plans often received no mention, or merely lip-service as a ritual one needed to do. If individuals were not vocational "leaders" in the state, they often noted how no one sought out their opinions and that they did not have access to creating change. A sense of powerlessness and cynicism pervaded interviews about the current delivery system.

Comments about the Colorado Vocational Association (CVA) were mixed. Some individuals enjoyed activities, such as the Summer Workshop, because it provided an enjoyable atmosphere in which to reestablish friendships. Other individuals found the workshop and the association in general a waste of time.

Many people criticized using state funds for CVA recruiting. As one person noted, "You're using state money to lobby state government by having summer workshop as a recruiting tool. And CVA doesn't speak for everyone in the state. Why can't our vocational organization act like other states' organizations?" On the other hand, individuals noted how the summer workshop was CVA's admirable attempt to provide statewide professional-development activities because the state had failed to provide worthwhile in-service training.

The universities came in for an inordinate amount of criticism. Again, individuals noted how they found little leadership or support from the institutions of higher learning. Often comments were made about how the universities either offered "the same old thing" or that the institutions reacted--instead of proacted--to individual needs.

The point of these comments was that teachers and school systems wanted leadership and direction from the state and that it was unfair to place the onus of responsibility for creating a quality delivery system on individuals in the field. That is, individuals often felt that the system blamed the constituents if they did not develop a comprehensive professional-development plan rather than the system proactively responding to the needs of the people.

On the positive side, individuals expressed hope that some of the new staff members at the state board would remain and provide much needed leadership. Individuals who were active in the professions of the CVA noted how they found support from the professional

associations. Professors Feller, Jansen and Welch consistently received mention as quite helpful with regard to professional development. The itinerant teacher trainers often received positive feedback as supporters of new teachers, although individuals coupled their comments with observations that they did not see enough of the individuals.

Constituents Served

Depending on the role and location of the interviewee, respondent comments differed. Individuals in rural locations consistently noted the inaccessibility of in-service training. Constituents such as community-college administrators or rural school superintendents pointed out that professional-development activities were irrelevant to their needs. Potential constituencies such as CBO personnel expressed the desire to have statewide training, but commented that no framework existed in any agency for such training.

For example, a rural school superintendent said, "I hear about voc. ed. in-service activities and I went to one once, but I felt like a fish out of water. There were directors of area vocational schools and vocational directors there and then me. My needs are distinct from that crowd. Why can't you get on the agenda of a superintendents' meeting, if you really want to give my kind of people in-service?" A community-college administrator noted, "My problems concern the management of a higher education institution. In-service for the state board means high-school problems. When we (community-college administrators) don't attend their meetings, we hear we aren't interested and that's unfair. We're interested if the meetings meet our needs, and they most often don't."

Content

A high degree of consensus existed with regard to the present content of in-service training, but virtually no agreement appeared about the optimal make-up of future programs. That is, few, if any, individuals expressed any commitment for maintaining the present system. Most individuals expressed keen disappointment at what had been offered. Oftentimes, interviewees noted how they did what was needed for recredentialing and little more. The reasons for disappointment were: inaccessibility, classes that were retreads of what individuals learned in college, materials that were irrelevant to current classroom demands, lack of technological update, insufficient use of different teachers and the business community, and lack of a variety of offerings.

On the other hand, individuals made a variety of suggestions about what kinds of activities they wanted to see. A clear distinction arose between those people who wanted workshops and courses in learning theory and teaching methodologies and those people who wanted technological update. Some individuals wanted courses in technological training to the exclusion of methodological update, and vice versa.

Similarly, some individuals opted for workshops that concerned only their particular discipline, whereas other people found merit to grouping disciplines together. A high degree of consensus did exist about making classes more accessible and providing a "menu" of workshop offerings, although specific suggestions about how to establish accessibility and what the menu would look like were not forthcoming.

The majority of respondents either did not use or were unaware of the curriculum library at Colorado State University. Of those individuals who knew of its existence, most people noted the difficulty of finding out what was available. Generally, one needed to talk with someone at CSU, and then request the book from the library. Although one often needed materials quickly in order to solve a particular problem, a long delay occurred. After the library materials arrived the individual had a short time period before the book had to be packaged and returned. One person spoke for many when she said, "It's too much of a hassle. It's like everything else. They say it's there, but it's really not. And if we don't use it, then it's our fault."

Delivery Roles

As noted, considerable criticism existed with regard to the primary deliverers of professional-development activities. The criticism concerned the lack of current awareness on the part of most instructors about the needs of present-day teachers. Instead, instructors appeared to rely on what they had been teaching for years, which created the feeling that in-service workshops were retreads of college classes. Different constituencies also pointed out how the present instructors did not meet their needs because they needed training in different kinds of workshops.

Many individuals knew that qualified local instructors existed, and that the business community had a cadre of people who could offer valuable instruction, but these groups were most often underutilized. Consequently, individuals expressed disdain for seeing the same faces year in and year out and wanted a diversity of course instructors.

In general, comments about the itinerant teacher trainers were positive. Most individuals did not point out specific competencies that the trainers taught to new teachers; instead, individuals noted how new teachers needed someone who could boost their morale. Positive comments occurred concerning VE270, although there was disgruntlement that oftentimes a teacher had to travel to Fort Collins to take the course, and that it was too short. The major criticism of itinerant teacher trainers was that they did not have enough time to work with teachers on a continual basis.

Evaluation

By and large, individuals felt that evaluation of in-service activities did not take place. Courses had written evaluations, yet the evaluations resided with the university. As a result, respondents felt "nothing ever changes." Informal evaluations existed insofar as program managers might talk with people who had taken a workshop or course to find out about its worth. But again, there has been so much turnover in state-board staff that individuals felt for the most part that their comments fell on deaf ears.

Few individuals had any idea about how to formally evaluate the relative worth of workshops or courses. However, people consistently noted how they wanted to be involved in the planning and evaluation process, but they did not want to be charged with creating the programs. That is, individuals had ideas and opinions about the kinds of activities they wanted to see offered, but they did not want to be expected to set up the programs.

5. SUMMARY OF FINDINGS AND CONCLUSIONS

The survey responses we received from vocational teachers and administrators and the interviews we conducted across the state indicated a genuine concern about and dissatisfaction with the condition of professional-development activities in Colorado. In this section, we summarize our research findings and draw some conclusions, based on these findings, about general directions for change and improvement. In part 2 of this report, we offer our detailed recommendations concerning how change might be implemented and improvements sought.

Summary of Findings

1. Throughout the state, vocational teachers, vocational administrators, local district administrators, and personnel at SBCCOE generally felt that professional development lacked adequate leadership and direction from SBCCOE.

2. Vocational teachers and vocational administrators throughout the state generally felt that their professional-development needs were not being met.

3. Professional-development and recredentialing plans do not appear to be taken seriously by a large percentage of vocational teachers and administrators in the state. Moreover, the data suggest that as many as half of the full-time vocational teachers in the state may not have written professional-development plans.

4. Throughout the state, vocational teachers and adminstrators were generally critical of the professional-development activities offered by SBCCOE, CSU, and UNC. With few exceptions, activities were generally viewed as redundant, outmoded, irrelevant, and/or of little practical value.

5. With few exceptions, vocational eductaors in rural locations had access to significantly fewer professional-development opportunities than those located in metropolitan areas.

6. Throughout the state, directors of vocational-education programs in secondary schools and community colleges generally felt that existing professional-development activities were not meeting their needs. This feeling was particularly strong in rural areas.

7. Throughout the state, vocational educators and administrators often felt they had no one with whom to speak at SBCCOE about ideas or concerns for professional development. They primarily attributed this problem to frequent changes in SBCCOE staff and their responsibilities.

8. The Colorado Vocational Association Summer Workshop received mixed reviews from both educators and administators. While many survey respondents and interviewees felt the workshop was worthwhile, the majority felt that it was of little value--particularly educators and administrators in the postsecondary sector.

9. Throughout the state, teachers felt they knew what their professional-development needs were, and how to meet them. Meeting these needs hinged on (1) increased support from their schools--including a commitment to professional development as well as increased financial support; and (2) availability and ready access to appropriate professional-development activities.

10. Throughout the state, educators and administrators reported the need for professional-development activities that focused on improving instructional methodology. They also reported a strong and generally unmet need for activities that focused on updating specific technological skills.

11. The majority of educators we spoke with either did not use or were unaware of the curriculum library at CSU. Those who had used the library generally felt that it did not meet their needs because of logistical problems -- specifically the difficulty of identifying and obtaining relevant, up-to-date materials.

12. Throughout the state, there is a strong belief among educators and administrators that many local instructors at community colleges and individuals in the private sector could do (and have done) a better job of delivering professional-development activities than faculty at CSU and UNC.

13. Throughout the state, the itinerant teacher trainers were generally viewed positively. The major criticism with respect to their efforts concerned the limited amount of time they had to spend with any one individual.

14. The majority of educators and administrators we spoke with felt that meaningful evaluation of in-service activities did not take place. Their judgments were based on their perceptions that no matter how poorly activities were rated, they seldom changed.

15. Throughout the state, teachers and administrators preferred location for professional-development activities was in their immediate locale or region.

Conclusions

Our research findings, as detailed in the preceeding chapters and as summarized above, lead to a set of general conclusions about professional-development activities in colorado and about general directions for change and improvement. The detailed recommendations that we offer in part 2 of this report attempt to reflect and address these general conclusions arrived at through our contact with teachers and administrators in the field.

1. The responsibility for providing leadership and direction of professional development in Colorado should rest with SBCCOE.

2. SBCCOE must make extensive changes if it is to achieve a quality delivery system for vocational educators in the 1980s and beyond. In short, an overhaul of the current system must occur.

3. The primary problem with the delivery of professional development by SBCCOE is that no one person or division at the agency is responsible for the development and implementation of a coordinated statewide effort.

4. One of the most important criteria for judging the effectiveness of SBCCOE's current or future delivery system should be the extent to which it meets the needs of <u>all</u> its different constituencies in the state

5. Vocational educators in rural communities have the greatest need for professional-development opportunities, and are currently the most poorly served constituency.

6. Current recredentialing requirements do <u>not</u> improve instructor quality.

7. SBCCOE has done a poor job of coordinating its professional-development efforts with other state and local educational agencies.

8. New full-time and part-time teachers need better access to, and increased assistance from, teacher trainers.

9. Technological and methodological updates are urgently needed by a significant number of teachers in the state.

10. Qualified in-service instructors are available at the local and regional level at costs that are less than those charged SBCCOE by the universities (CSU and UNC).

11. The current system of evaluating the quality of professional-development activities is inadequate.

12. The curriculum library at CSU is not meeting the needs of the majority of educators in the state.

PART TWO
RECOMMENDATIONS

6. INTRODUCTORY REMARKS

After six months of research and fieldwork, national and state surveys, and interviews with a wide array of constituencies, we feel confident that the comprehensive model presented here will provide Colorado with an effective and efficient program for the professional development of vocational educators. It is tempting to predict a smooth, trouble-free implementation of the training model; we are aware, however, of the problems and barriers that can be encountered when the status quo is overturned.

Necessarily, SBCCOE must make extensive changes if it is to achieve a quality delivery system for vocational educators in the 1980's. In short, an overhaul of the current system must occur. Reduced support from the federal government and widespread discontent with current mechanisms in Colorado for updating vocational educators point out that past practices and procedures are no longer appropriate. Colorado is certainly not alone in the need for examining its delivery system; we have seen numerous examples of other states grappling with similar issues.

Although the issues are similar in other states, Colorado's problems -- and consequently answers -- are unique. The geographic diversity of the state demands the creation of a delivery system that addresses the needs not only of educators in the metropolitan area, but also in communities such as Lamar, Haxtun, and Durango. Although the rural communities of Colorado account for less than nine percent of vocational educators, those communities have, in many respects, have the greatest need for professional update. In-service activities must be created at convenient times and locales so that the needs of those communities can be addressed.

Unlike Arkansas' state board, which only services vocational postsecondary schools, Colorado must also have a system that effectively meets the needs of a wide array of constituencies. The in-service demands of community-college personnel differ radically from those of high-school teachers and administrators. Similarly, the needs of Area Vocational School (AVS) directors are not at all germane to rural superintendents, who may have no more than three vocational teachers under their command. For Colorado's delivery system to be effective, it must meet the needs of those different constituencies.

Ohio's state board has enjoyed close proximity to the National Center for Research in Vocational Education. The awareness of new curricula and trends in vocational education has been relatively easy for vocational educators in Ohio because of the geographic closeness they have had with the National Center. The vocational constituencies in Colorado, however, remain distant from a research center that can provide curricular update. Further,

discussion and knowledge of cutting-edge issues in vocational education often do not occur in Colorado because a sizeable segment of the population neither has geographic access nor a convenient time to gather and discuss such issues.

The delivery system outlined in the recommendations that follow addresses such issues and provides a context for service delivery that is cost-effective and efficient.

We have worked from two primary assumptions. First, the responsibility for providing the leadership and direction for professional-development activities rests with SBCCOE. We agree with Philip Jackson when he says:

> Anyone who has ever taught knows that teaching is a demanding task. People who measure the difficulty of a job by the amount of sweat on the worker's brow may find this fact hard to accept, but those of us who have been in charge of twenty-five (students) from 8:45 in the morning until 3:15 in the afternoon know how comforting it can be to see the last yellow bus pull out of the school driveway. The idea of then turning our attention to the serious business of trying to understand what happened to the students that day or of trying to prepare for tomorrow's classes is ridiculous; yet, at present, that is exactly what almost a million and a half teachers are expected to do every day of the week (1973,p.29).

If teachers are to grow in their jobs they need an institutional climate that supports, encourages, and directs their efforts to learn more about what they are doing. We have found that vocational educators in Colorado are badly in need of leadership, not just leadership of the kind that helps them move up on the pay scale, but the kind that will excite their intellectual curiosity. The responsibility for this form of leadership rests with SBCCOE.

The second assumption is that in-service activities should not be offered if they do not have quantifiable objectives attached to them. Professional-development activities should not simply be bureaucratic hoops that a teacher must jump through in order to pile up recredentialing credits. The essential rationale for in-service activities is to enable teachers to be better instructors when they return to the classroom. If SBCCOE cannot demonstrate that they have improved the competencies of the teachers and administrators they have taught through these activities, then they should not be offered. Teachers are far too busy to fill up their time with recredentialing efforts that amount to little more than marks on a checklist.

In discussions with many different constituencies throughout the state, we have discovered a cynicism with regard to the content of professional-development activities. Far too often we have heard comments such as "outmoded," "useless," and "a time-waster." When we asked individuals what made for an effective in-service, the

comment often was, "When it was held in my school after work." Although we readily acknowledge the need for professional-development activities to be held at convenient times and locations, comments such as the above are disturbing. The primary ingredient for an effective in-service activity should be that teachers learned a skill that will improve their teaching. All too often, of course, in-service has come to be seen as a way to move up the salary scale rather than improve teaching. We reject that notion and provide a blueprint for an effective delivery system in Colorado.

The recommendations that follow address the five essential components for providing quality professional development:

- Delivery-System Framework
- Constituencies Served
- Program Structure and Content
- Delivery Roles
- Evaluation

An outline of the recommendations is provided in Appendix K.

We encourage the reader to consider the needs not only of one specific constituency but of all the different constituencies in Colorado. Some of our recommendations will provoke disagreement. Some individuals, for example, believe that the content of in-service activities should stress only technological update. Other individuals feel that teaching methodologies and learning theories should be the primary focus of workshops. Some individuals believe that disciplines (for example, agricultural education) should be segregated and have nothing to learn from one another, while other individuals believe all competencies are generic to the teaching profession.

Our task--and now the task of the reader--is to consider how SBCCOE can provide all constituencies with effective professional-development activities at reduced cost. Obviously, if SBCCOE had unlimited funds, the needs of each individual teacher could be addressed. With a tight budget the reverse is true. The task for the research team was to create a system that would be relevant to all different constituencies.

We believe that rigid segmentation of different disciplines is neither cost-effective nor necessary. Vocational teachers have similar technological and methodological needs that must be met. At the same time, we recognize that different disciplines have unique needs.

Throughout the ensuing discussion we have asked ourselves two questions. First, what training should be provided that is generic to the profession of vocational education? Second, what training should be provided that is specific either to the

vocational discipline (such as, agricultural education) or the vocational role (such as, area vocational director or superintendent of schools)? The following discussion provides a framework to meet both the generic and specific needs of vocational educators.

7. DELIVERY-SYSTEM FRAMEWORK

At present, the primary problem with the delivery system for professional development is that no one person is in charge of the overall framework of what should be offered. The multitude of duties that program managers and other staff at SBCCOE currently have results in professional development not receiving sufficient attention. In addition, a comprehensive, multi-year plan of what kinds of activities need to be offered does not exist because there is no individual who has a vision of what needs to be done and is able to orchestrate its accomplishment.

Coordination must occur both on an organizational level and with educational agencies throughout the state. One individual should coordinate activities with the Colorado Department of Education (CDE) and the Colorado Commission on Higher Education (CCHE) in order to avoid program duplication and share costs of coordinated activities.

One obvious example concerns the use of teleconferencing for in-service training. However, we do not believe that teleconferencing should be used unless the best possible system is utilized. Inexpensive versions of teleconferencing, such as video tapes or one way transmission of classes, do not provide adult learners with enough positive, intellectual feedback to warrant utilization. Indeed, we fear that the use of such techniques will strike the adult learner as a gimmick. Consequently, should a better system be eventually used, it will be difficult, if not impossible, to gain support from the audience for a new, improved version of teleconferencing. Instead, SBCCOE should coordinate its needs and expenses with other state educational agencies in order to implement a quality system.

The lack of any one individual in charge of professional-development activities also has often meant that an inordinate amount of in-service training has occurred in the metropolitan area rather than in the outlying communities. We agree that the travel costs of flying an instructor from Fort Collins, or Greeley or Denver to communities such as Durango and Grand Junction can be prohibitive. At the same time we concur with one local administrator who said, "It is absurd to say that only one individual--located hundreds of miles from here--is qualified to offer professional update for teachers in Colorado. Why can't you utilize qualified, local people?"

One reason that local people have not been adequately utilized is that SBCCOE has not had the manpower to identify and locate those qualified individuals. In addition, cities such as Durango and Cortez could also logically enter into bilateral agreements with New Mexico for technical update. That is, it is cost efficient

for border towns to share resources and gain recredentialing credit for similar training activities in one another's state. In order for such activities to happen, however, SBCCOE needs a coordinator.

It is also crucial that the state have a clear idea of what kinds of activities and services it wants to deliver. A three year, theme-based plan should be developed so that all constituencies will have a clear understanding of the future direction of professional development. The creation of such a plan will provide a rationale and understanding for what is to be delivered, and will better involve both those who are to provide in-service training and those who will take the training.

Because we see professional development as an ongoing activity, we recommend a three-year plan instead of a five year plan. A three-year plan allows for an agenda to be put in place while at the same time it continually calls for reevaluation and reconceptualization. Unlike a formal state agenda, a professional-development plan demands a degree of flexibility with regard to the kinds of in-service training that will be delivered. Too many changes can occur in the workplace over a five-year period so that the kinds of skills originally thought needed would be useless at the end of the fifth year.

We recommend that SBCCOE have one full-time Director of In-Service (DIS), who would report to the State Director. In order to insure that close communication occurs on a regional level we recommend that one third of the time of regional representatives be geared toward in-service activities. In addition, a half-time Assistant Director of In-Service would be responsible for coordinating the curriculum-media center that will be located at the state-board offices in Denver.

The rationale for the DIS reporting to the State Director is manifold. Obviously, other possibilities exist. Once one accepts that the current system is unacceptable because no one is in charge of planning in-service, then several viable alternatives become possible. A professional-development center could be created at one of the universities. SBCCOE could create a proposal and ask interested private agencies to apply to coordinate activities. All in-service monies could be disseminated to local agencies, and a financial director at the state board could provide money to local schools on a FTE basis.

The research team considered many different options but strongly recommends that professional-development activities be coordinated at the state board. Again, a major component of SBCCOE's mission should be in providing leadership and service to vocational teachers and administrators in the field. To have in-service activities coordinated by an outside agency would be an abnegation of responsibility on SBCCOE's part. Morever, it would neither be cost-effective nor encourage useful evaluation.

For example, if a private agency coordinated activities, SBCCOE would have created a middle-man that would undoubtedly use monies for indirect cost that should go toward in-service. Presumably the universities will play a major part in the delivery of services; to have a professional-development center located at a university would make evaluation of in-service activities impossible. How could one reasonably expect a professional-development center to honestly evaluate itself when the evaluation would in part determine its future funding? Again, to provide an outside evaluation would drive costs up. Further, to rely on one institution defeats the concept of regionalism and denies that qualified, less expensive alternatives exist in each region. To dole out money to local schools would work extremely well in some instances, and poorly in many other cases. The rural administrators who have small FTE counts would again be shortchanged on the amount of activities they could handle, whereas a state-coordinated effort is more likely to provide parity to all of the principle actors involved in professional development.

Regardless of the plausible reasons listed above, however, the research team believes it is the philosophical responsibility of SBCCOE to provide leadership regarding what kinds of activities should be offered to vocational educators. Morever, a Director of In-Service located at the state board is both more cost-efficient and effective that any other possibility.

We also urge that regional centers be established so that in-service activities can be offered to all individuals at convenient times and locations. Again, with limited funds available and Colorado's geography, it is impossible to set up a coordinated system so that some educators would not have to drive a few hours from their locales to reach an in-service activity. At the same time, it is unfair to make teachers journey an inordinate amount of time to reach a workshop or course. Fort Collins, Denver and Pueblo should be designated as regional centers and specific educational institutions should be designated as their sites. Grand Junction and Durango/Cortez should alternate yearly as the regional center for the western slope. The Denver area could conceivably have more than one regional site.

The purpose of having specific sites as regional centers is to enhance coordination. Far too often the research team heard that local school directors and teachers did not know who to talk with about specific in-service needs. With a director of in-service located in Denver and a regional representative located at a specific educational institution in the region, communication problems would be alleviated. Although it is not imperative, community colleges are logical sites for regional centers.

One critical element of successful professional development is the involvement of the multiple constituencies who are affected by in-service training. Because of the lack of adequate planning and coordination on the part of SBCCOE, not enough attention has been

given to involving different constituencies in the kinds of activities that need to be delivered. One assumption that the research team makes about a regional framework is that local and regional personnel should have a voice about what activities take place.

In addition to regional representatives, an Advisory Board should be created that would provide the DIS with input about what kinds of activities should occur. Many different constituencies should be represented on the Advisory Board and we encourage representation from the universities, community colleges, area vocational schools, and local schools. We also recommend that the Advisory Board include representatives from the professional areas of the Colorado Vocational Association (CVA) and from teachers not associated with the association. A strong working relationship, input, and recommendations must occur with the professional associations of CVA and non-affiliated teachers and administrators. In many respects these constituencies will provide a voice for those educators who will receive in-service training, and that voice needs to be represented and heard.

One particular example of how the Advisory Board could be utilized concerns curricular update. At present, curricular services provided by SBCCOE are inadequate. Many individuals neither use the curriculum library, nor even know of its existence. The money that currently goes to the curriculum library should be redirected to small curricular projects that would be determined by the Advisory Board.

Each curricular division could select one particular area that needs investigation, and the assistant DIS would, in turn, create RFPs for each component. The basis of the investigation would be a study of a "hands-on" curricular issue that the Advisory Board had determined was a problem. Any number of individuals could apply for the study--teachers, university professors, and graduate students are some obvious examples. The curricular study would take no more than nine months and, at its conclusion, the report would be disseminated to all teachers in the field by the half-time Assistant Director of In-Service. Again, a three-year state plan would lay out the kinds of curricular issues to be considered.

In addition to the curricular issues, the Assistant Director would coordinate a curriculum library. The regional representatives would be utilized to act as clearinghouse agents, so that whatever curricular materials a local school utilized could also be made available to other schools. That is, oftentimes local businesses make curricular materials available to local schools, but not to other educational agencies. A regional representative would be aware of what is available and alert the Assistant Director. The assistant director would also utilize the existing state Technical Advisory Committees for information about pertinent curricula that businesses would be willing to provide to SBCCOE. Individuals at SBCCOE also have materials that come into their offices, yet the

materials often remain unknown to other potentially interested parties because no one is designated to act as curriculum coordinator.

Finally, the Assistant Director would be responsible for providing accurate information about how to find particular materials by acting as a clearinghouse for educators. Memberships in groups such as the Vocational Technical Education Consortium of States (VTECS), and communication with other state curriculum centers would provide a comprehensive catalogue of holdings. Electronic mail, toll-free phone numbers, and computer networks for the state's university library system currently exist but are underutilized because people are either unaware of what is available or do not know how to access the information. The Assistant Director would make that information far more accessible.

The only other individuals who would be considered part of the In-Service Center would be a small regional cadre of resource teachers. Each region would have a roster of teachers who were mentors to all other vocational-education teachers in the region. The number of resource teachers would be determined on an FTE basis, and they could either be nominated for the position or apply. SBCCOE would buy a portion of their time, such as ten days per year, from the school district and provide the teacher with a per diem for the costs incurred during his or her workday. One assumption of utilizing resource teachers is that good teachers need to be recognized. A wealth of experienced and talented teachers exist in each region whose expertise could provide much insight and help to teachers in the field. When asked how they would feel if someone observed their classes, virtually all teachers expressed enthusiasm for the idea, provided that the observations were collegial and not evaluative.

The areas of responsibility for resource teachers would be threefold. First, other teachers could observe a resource teacher teach a class in order to gain insight into superior methods of teaching. Second, resource teachers would teach VE 270 and aid new teachers on a continuing basis. Resource teachers would observe new teachers in the classroom, comment on their performance, and request that new teachers work on a particular skill or activity before the next visit. Third, resource teachers also would observe experienced teachers. The purpose of their observations would be to evaluate the competencies teachers use in the classroom and determine whether the objectives set forth for workshops and courses had been achieved. To insure that the resource teachers worked as a cohesive unit, each region would have a two day workshop at the regional center for all resource teachers prior to the start of each school year.

It is imperative to note that resource teachers would not evaluate teachers, but rather the competencies of teachers. That is, if the competencies were not shown in classrooms, then the evaluation would show that a particular workshop or course had been

ineffective and needed to be altered. In all working relationships with teachers, the mentor would have a collegial relationship. If an experienced teacher did not want a resource teacher in the classroom, then the visit would not take place. Evaluative reports to school administrators or SBCCOE would not be drawn up. Obviously, school administrators would initially agree to the site visits by the resource teachers, and the administrators could conceivably suggest which teachers might be good candidates for observation.

In essence, however, the bulk of professional-development responsibilities would lie with the Director of In-Service. The DIS would coordinate activities among state agencies, with other states, and with the regional centers. In discussion with the regional centers, the Advisory Board, resource teachers, and SBCCOE, a comprehensive, three-year, theme-based plan would be developed. The DIS would create and promote in-service activities with local, regional, state, and national businesses in order to enhance business-education ties.

The responsibility for the development and analysis of in-service activities would rest with the director. In addition, rather than a newsletter for each division, the director would create one integrated SBCCOE newsletter, thereby saving on cost and making information available to all vocational educators. The possibility of creating one newsletter in conjunction with CVA also warrants consideration. Press releases and local newspapers should also be utilized to increase the flow of information about in-service activities.

Marketing and advertising for workshops would be the responsibility of the director and the regional representatives. The possibility of locating grants and coordinating cooperative funding arrangements with other agencies exists as a distinct reality. A variety of alternatives exist when one person handles the responsibility of development, coordination, and evaluation of professional-development activities.

8. CONSTITUENCIES SERVED

SBCCOE needs to make explicit two facts regarding who they serve. First, simply by sheer quantity, the number of secondary teachers and administrators far outweighs other constituencies, and therefore will receive greater in-service attention. Second, SBCCOE must recognize that several unique audiences exist that need professional development. Consequently, they need unique kinds of activities. In the past, in-service activities appeared to be lumped together and SBCCOE assumed that what secondary personnel needed was what all vocational personnel needed. We found considerable resentment that such was the case when we interviewed different constituencies.

New teachers also need particular kinds of support. Ongoing working relationships should be developed between a resource teacher and a new teacher in order for the new teacher to utilize the resource teacher's knowledge and skill. In addition to teaching VE 270, the resource teacher would visit the new teacher's classroom no less than five times during the first year in order to provide specific recommendations about teaching technique. Each visit would provide the resource teacher with ideas for the new teacher to work on before the next visit. The purpose of ongoing visits by the resource teacher would be to enable the new teacher to master specific competencies.

Special attention should be focused on three different constituencies: part-time teachers, rural personnel, and new audiences. Part-time teachers need specific training in teaching methodology that should be the responsibility of SBCCOE to deliver. Rural superintendents and teachers - although small in number - are in great need of professional development because of their rural location and inability to attend most in-service activities. Finally, new audiences, such as vocational counselors for JTPA and service delivery areas, need training even if they fall outside of what we have typically considered SBCCOE's purview. For example, a workshop could be held for summer JTPA counselors so that they would have some training to counsel vocational students.

Consequently, SBCCOE needs to reaffirm its willingness to serve different constituencies and develop in-service activities that meet the needs of those unique audiences. Thus, with regard to the questions with which we began this discussion, we have found that specific vocational roles demand specific kinds of training.

9. PROGRAM STRUCTURE AND CONTENT

Due to a variety of different needs on the part of vocational teachers and administrators, the research team recommends that six different content areas be established. Professional development funds should be spent only in the six content areas. Other kinds of workshops, training, or courses may be of merit, but with limited resources the state board should restrict its funds to the six areas described below.

It would be naive to assume that all teachers need precisely the same kinds of training. In this light we agree with the National Committee on Vocational Education when it wrote:

> In-service training programs for vocational education should offer a variety of opportunities for teachers with different strengths and weaknesses. Effectiveness in teaching should be stressed for those teachers (most often those who learned their occupational skills in industry) who have little experience in teaching. Internships in business should be made available on a regular basis so that all vocational education teachers can periodically sharpen their occupational skills and knowledge. Such work experience should be considered part of in-service training for teachers and should be awarded appropriate credit in a system that requires such. (1983,p.77)

Similarly, we agree with the findings and recommendations of the National Center for Research in Vocational Education:

> In-service teacher education in vocational education will also require rigorous examination and revision. All in-service training will require work in the teaching of the basics as an integral part of their subject matter. Further, a system of requirements for maintaining currency in the field should be instituted to assure that in-service teachers do in fact remain current in subject matter and teaching methods. It will be necessary to tie such a requirement to the renewal of certification in order to provide this assurance. Additionally, it will be necessary to provide an effective system for 'retreading' those teachers in subject matter areas that become obsolete as technology progresses. (1985,p.34)

Consequently, we propose that a variety of offerings occur for vocational educators that provide a balance of methodological, technological, and national, future-oriented content. The content of most offerings should be based on the interdependence of vocational disciplines rather than the unique segregation of different audiences. That is, we agree with Alberta Hill, who noted: "The basic needs for in-service education are similar for

all vocational educators--the relative importance of each will be dependent upon the occupational field in which the educator is working, the organizational structure of the education program, and the type of position held" (1971, p.78).

Thus, we outline recommendations for training for all vocational educators, yet also note specific constituencies. Specific kinds of training may be needed for particular vocational roles, just as specific kinds of training may be useful for particular disciplines. For example, guidance counselors may need more in-service study in the interpretation of testing than teachers; curriculum coordinators will require more work in the theory of curriculum development than a welding teacher, and area vocational supervisors may need more work in social dynamics than a classroom teacher.

Our central assumption, however, remains that basic teaching competencies are needed by all teachers. Variations in needs for in-service education arise from differences in the position and duties of the vocational educator. However, this is a difference of degree and not a difference in the basic needs for or functions of in-service education. If the common needs for in- service training are recognized, some aspects of in-service education can be planned to serve simultaneously the needs of several groups. Recognition of the common functions or elements should also help vocational educators allied with one vocational service to become more receptive to procedures that have proved to be successful in other occupational areas.

What follows is a discussion of each content area with regard to time, location, subject matter, and recredentialing requirements.

Regional Workshops

The centerpiece of in-service training would be similar workshops offered in each region. We recommend that the workshops be offered twice a year for two full days at the regional educational center. The first workshop should occur immediately prior to the start of the school year, and the second workshop should occur during the second semester on two consecutive Saturdays. Because schools start at different times, the first workshop should occur as close to the regional start of the school year as possible.

The workshops would be offered in each region in order to provide a convenient and accessible location for all constituents. Perhaps the most difficult--if not impossible--component to build into an in-service seminar is a mutually-agreed-upon time. Interviews with people in the field provided no agreement whatsoever about when offerings should be held. Summers were bad because individuals either held other jobs or wanted a vacation. Evenings were bad because people were tired after working all day. Week-ends were

bad during hunting season. Winter weather sometimes made the roads impassable; and during the spring people were too busy. However, more than one individual noted that if the workshops were of quality, then the timing would not be so important.

The recommendation for two two-day workshops came about for a variety of reasons. A short, concentrated effort is superior to other possibilities insofar as two-day seminars provide individuals with the opportunity to congregate and casually discuss ideas not afforded during shorter time periods. A two-day seminar also reduces travel time when compared to four one-day workshops or eight evening seminars.

We encourage the Colorado Vocational Association (CVA) to hold its own workshops. If they so desired, CVA could hold their workshops at similar times. For example, for the spring regional workshop CVA could hold meetings on the following Sunday. For the start-of-school regional workshop, CVA could have activities prior to the state-board workshops. Again, the audience would exist for the CVA so that attaching a third day onto a workshop would not create logistical problems.

The content of the regional workshops would be method-based and, as noted, the majority of offerings would not be segmented by discipline. However, some seminars should be held that addressed specific competencies relative to particular audiences, such as guidance counselors, nurse educators, and so on. The content of the workshops would be outlined in the three-year, theme-based plan. It is expected that the content in each region would be similar, except for minor adjustments according to regional needs and input.

The workshops would have a menu of offerings based on performance objectives. The emphasis of the regional workshops would be to provide vocational teachers with concrete skills that they could use when they return to the classroom. The workshops would create an atmosphere of collegiality and dialogue with other teachers as they learned state-of-the-art teaching methodologies from highly qualified instructors.

Because we see professional development as an ongoing activity, we recommend that recredentialing requirements be geared down from five to three years. We believe that a three-year plan will facilitate setting meaningful and attainable goals. In addition, three-year plans facilitate continuous evaluation of one's pedagogical and occupational skills.

To gain a recredential, a teacher's first step would be to attend four of the six regional workshops offered over a three year period. One credit would be offered for each workshop. Cost of the workshops would be based on an "instructor of record"/audit fee.

State Workshop

An annual, statewide workshop would be offered in Denver on Friday evening and Saturday in May or June for all vocational educators. Springtime usually allows for easier long distance travel, and Denver is the logical center for a statewide meeting. If the workshop took place in Denver in May or June, then university lodging for workshop participants could be arranged at minimal cost. For those individuals who had to travel long distances to attend the workshops, a mileage reimbursement plan could be devised that is similar to what the state board currently provides for summer workshop participants.

The content of the state workshop would differ entirely from the regional workshops. The state workshop would deal with an overview of the trends and philosophy of vocational education. Leaders of business would be utilized to provide input about how vocational educators can be responsive to labor-market demands. A major address would be given by a nationally recognized figure. The seminars would focus on national, regional and local analysis and interpretation of labor-market supply and demand for different vocational skills, and how teachers and administrators can respond to those demands.

Far too often local educators are unaware of the broader scope of vocational education. Technology and labor demands will continue to change rapidly in the future and individuals need to understand how they can respond to those changes. In some instances it will appear obvious that skill retraining is needed, and in other instances it will become apparent how different strategies can be utilized to stem the tide of declining enrollments.

A seminar that speaks to the broader issues of vocational issues warrants a statewide audience so that input can occur from individuals throughout the state. Credit would be offered for the workshop for individuals who so desired. "Instructor of record" or an audit fee would be arranged. Although attendance would not be mandatory, an individual could substitute two state workshops for one of the four mandatory regional workshops needed to meet recredentialing requirements in a three-year period.

Catalogue Workshops

The Director of In-Service should consider developing a small catalogue of "mini-workshops" that can be offered throughout the state to institutions for a minimal cost to school districts and other educational organizations. These workshops would last no longer than a day and would not have any cost attached to them for participants. There would neither be requirements to take the workshops, nor would there be credit offered for them. The workshops would be offered at the institution, or at a districtwide site.

The purpose of the catalogue workshops would be to aid administrators who desire an in-service for their personnel about a particular problem, such as how to meet the needs of special learners, how to deal with drugs in the classroom, and so forth. Oftentimes school districts have a cadre of personnel who can meet the broader needs of all teachers; what they do not have, however, are a roster of individuals who could offer workshops relevant to vocational teachers.

Specified Constituency Workshops

As noted, specific constituencies, such as rural superintendents, community-college administrators, and JTPA personnel, will need separate workshops that meet at convenient times and locations. Credit could be offered for the workshops and cost would be based on a tuition/audit basis. The content of the workshops would deal with mutually agreed upon topics that the constituencies felt warranted attention.

Like the regional workshops, these seminars would have specified objectives attached to them. The key to the seminars would be a continual dialogue with the specific constituency to determine and assess what needs exist and how they can best be addressed by an in-service format. Because of the relatively small size of each constituency, it is expected that each workshop would be offered in one location. The time and location of the workshop should allow as much access possible for each constituency.

Course Offerings

At present an individual must have six-semester-units of courses in order to meet the five-year recredentialing requirement. Since the research team recommends that the time frame be reduced from five years to three, an individual would only have to take three semester units, or the equivalent of one course offering. Credit would be offered, and cost would be based on an "instructor of record"/audit fee.

The content of the course would be based on Performance Based Teacher Education (PBTE) modules. The locations for the courses would vary according to need, but each regional center would have a specified number of PBTE courses taught each year. The courses would differ from the workshops insofar as they would follow the agenda set forth in the PBTE offerings created by the National Center for Research in Vocational Education (NCRVE) and published by the American Association of Vocational Instructional Materials (AAVIM). Courses could not be retaken, and if so desired, an individual could attend all six regional workshops and two Denver workshops to substitute for the course. The rationale for the substitution is that experienced teachers and their administrators may feel that such competency-based training would not be as worthwhile as the regional workshops or statewide seminar.

Technological Update

The final recredentialing requirement would be that all teachers would have to take one month of technological update every three years. Although an individual could do more than one month of update, any additional training could not be substituted for other recredentialing requirements. We recommend that the state board request monies from the state legislature for each vocational teacher. The stipend would cover all costs related to the internship and provide a modest incentive to the individual. Hamilton and Wonacott (1984, p.43) have noted four functions that would need to be provided by the update program:

(1) Vocational/technical teachers need to be made aware of the new technology.

(2) Teachers need to gain the requisite knowledge associated with the new technology.

(3) Teachers need to develop skill performing the specific tasks of the occupation that incorporate the new technology.

(4) Teachers need to revise curricula and develop instruction to incorporate the new technology into the training program.

We wish to stress the fourth point. By technological update we do not mean generic training for the skilled teacher. Optimumly, the training would not only provide the individual with the latest developments in his or her field, but also provide insight into how those developments can be adopted in the classroom. Simply because an individual knows how to use a machine or understands a new technology does not mean that the individual knows or understands how to teach that machine or new technology.

Hence, technological update programs should also train the individual in how to use what he or she learned in the classroom. Credit should be offered for the class and the internship should be offered on a tuition/no cost basis. The individual, local administrator, regional representative, and director of in-service all would play a role in placement.

Recredentialing

We recommend that the recredentialing office be moved to the state-board office in Denver. There appears to be little, if any, rationale for having a recredentialing office of the state at a location where recredentialing units are to be conferred. To avoid the appearance of a conflict of interest, the recredentialing officer should report to the DIS and work out of Denver.
To reiterate, the time clock for recredentialing requirements would be shifted downward from five years to three. Rather than six semester units that can be taken on any subject matter, a three point agenda should be substituted (See Appendix L).

(1) Four of six regional workshops must be taken over a three year period. Two statewide workshops could be substituted for one of the four workshops. Resource teachers could substitute their two-day seminars for three of the four workshops.

(2) Three semester hours would be required over a three-year period. Attendance at six regional workshops and two statewide workshops could substitute for the three semester hours.

(3) A one-month internship would be required over a three-year period. Additional internships could not be substituted for other requirements.

In discussion with certification officials at the Colorado Department of Education, it appears there would be no problem whatsoever for vocational instructors to have their recredentialing offerings also count toward recertification requirements. In order to enable teachers to move up on the pay scale, all offerings would have university credit attached to them. As the flagship graduate institution for vocational education, Colorado State University (CSU) would approve and certify all in-service course offerings. Rather than have teachers pay full tuition credit, an instructor-of-record, paid by the State Board, would offer the class so that tuition would be substantially reduced.

The workshops and courses would have specified objectives tied to them so that when individuals complete each component, they acquire particular strategies and hands-on learning that can be utilized when they return to the classroom. Again, it is our main intent to create a programmatic structure that promotes real learning rather than merely bureaucratic hoops that teachers must jump through in order to be recredentialed.

The current picture is one of teachers and students who must drive long distances at inconvenient times to attend a course whose subject matter bears little or no relevance to classroom teaching. The cost to participants and the state board is prohibitive. Most often, what has been learned remains intangible, as courses or series of workshops described as "motivators." We contend that SBCCOE offerings should have sound objectives that can be clearly identified.

The research team firmly believes that technological and methodological updates are urgently needed by teachers. We reject the notion that "after the first year teachers are set in their ways and don't want to learn anything else." As we have traveled throughout the state and talked with teachers and administrators, we have for the most part found individuals quite willing to learn. But they are tired of classes that regurgitated what they learned years ago or classes that were offered miles from their homes.

10. DELIVERY ROLES

We recommend that the Director of In-Service utilize all available qualified instructors at the lowest cost to SBCCOE for all workshops and courses. A three-year state plan would outline what activities would occur and when and where they would be offered. The DIS should contract out services as appropriate, and presumably many different individuals would be interested in teaching a workshop or course. Obviously, the universities and community colleges will play an important role in delivering services. Through the regional representatives, the state board will also have a roster of qualified individuals in the region who could provide professional development.

We recognize that our recommendation regarding delivery roles provides the possibility of a distinct departure from previous practice. Whereas the universities were once the sole providers of SBCCOE in-service activities in the state, we now advocate the possibility of many different instructors providing in-service. To be sure, the universities will still be involved in delivering some services, but the possibility remains that the funding level to which they have become accustomed will decrease.

At the same time, much research points out that successful in-service programs utilize local and regional instructors. Morever, because of reduced federal funding, cost-effectiveness remains of paramount importance. We also encountered an inordinate amount of criticism about the quality of previous in-service activities. Finally, we are aware that we live in a society that prides itself on fair competition. To provide a monopoly to one institution runs counter to our search for excellence.

We recognize the potential financial burden such a change will have on the universities. At the same time, we have been charged with recommending a plan for the most effective and efficient delivery of professional-development activities. The research team's mandate was neither to investigate pre-service education nor come up with funding formulas for university vocational-education departments that have survived on soft SBCCOE money. Again, the purpose of this proposal concerned in-service training, and from the foregoing analysis it should be evident that change ought to occur. However, we strongly urge that any such funding changes be done in an orderly, planned way so that the universities have transitional monies for a year with which to operate while they find alternative sources of funding for their faculty.

We believe that the primary university role is to grant degrees and help coordinate statewide educational activities. As members of the Advisory Board and as the providers of credit for the workshops, the universities would act as important quality-control agents for the state board. If university standards were not met, then credit could not be awarded for the workshops and courses. Funds generated from tuition would go into university coffers as

usual. Indeed, in one sense, the universities would be generating more tuition credits with the proposed plan and would therefore receive additional income.

As members of the Advisory Board, the universities would be involved in formulating the three-year plan from its inception. The universities would act as peer reviewers when they reviewed course content and instructors. The community colleges could act as logical regional subcontractors who often would be the instructors-of-record.

Finally, the proposed plan would allow the Colorado Vocational Association (CVA) to do what it was designed for rather than have to assume the responsibility of meeting the needs of the entire state. That is, CVA should meet the needs of its members, and is under no obligation to service the entire state. Regional workshops and the statewide forum will supplant the need for the summer workshop. As noted, if the CVA wishes to, it could offer its own workshops in cojunction with the regional workshops. A summer workshop could still be held and its funding formula could be similar to those established by vocational associations in other states, where members and nonmembers pay fees for the forum. As members of the Advisory Board, the CVA would also have input about what kinds of offerings should take place at regional and state workshops.

11. EVALUATION

As discussed earlier, we recommend that the Director of In-Service (DIS) be responsible for evaluation. Every workshop and course that is offered will be evaluated by a questionnaire distributed to participants. The questionnaire will be developed by the DIS and will form one basis for evaluating whether or not the specific offering was worthwhile.

During the second year of every three-year cycle, a statewide evaluation will take place. A questionnaire will be disseminated to a random sample of vocational personnel throughout the state. The questionnaire will address the effectiveness of previous offerings and the kinds of activities that need to occur during the ensuing three years.

The Advisory Board will provide input on the activities that have occurred. Likewise, regional representatives will interview many different constituencies to ascertain their thoughts about the effectiveness of workshops and course offerings.

Resource teachers will observe teachers and look for competencies addressed in workshops and courses. They would look for the utilization of in-service activities in the classroom to discover whether the material taught proved useful. Any material that had not been utilized is another clue that the workshop--not the learner--was ineffective. That is, if a resource teacher never saw specific objectives of a workshop utilized in a classroom, then it would point out that the workshop's objectives had not been met and changes should occur in the delivery of the workshop.

Finally, systemwide "vital signs", such as those used in Ohio and Illinois, need to be utilized. Employer satisfaction, job placement of students and the like are signals of how well the system is working. The vital signs can indirectly aid the DIS in determining the overall effectiveness of professional-development activities. An evaluation system based on communication, coordination, and specified objectives will provide SBCCOE with distinct methods to determine the worth of its programmatic offerings. Moreover, such an evaluation system could provide planning data for future in-service activities.

CONCLUDING REMARKS

The framework that we offer for consideration may be difficult to implement at first. SBCCOE should expect to encounter questions regarding various recommendations made in this report. As noted, we suggest that the university relationship be altered, and this could prove alarming to faculties already experiencing financial burdens. The CVA may question why SBCCOE will not continue to fund a Summer Workshop in Fort Collins that is a "motivator." Teachers may also question the wisdom of increasing recredentialing requirements. The state legislature may balk at providing financial incentives for technological update. SBCCOE staff may dislike no longer being able to control in-service activities for their own program areas.

Each constituency will raise legitimate questions about the nature of this report. We are confident, however, that the answers to their questions can be understood in the text itself. The bottom line is that change must occur if Colorado is to keep pace with the changes in the region, in the labor market, and in federal support. To reiterate, present and future trends demand that professional development have specified objectives and be offered at convenient times and locations by qualified instructors at the lowest possible cost. If training does not meet that criteria then it should not be offered. It is important to look upon the proposed changes not as a repudiation of past administrations or policies, but rather as a way to respond to the present and future. The challenges that lie ahead for vocational educators demand that we think anew, and act anew.

One of the critical themes running throughout this report is that vocational educators must develop competencies not only in their specific profession, but also in the larger domain of vocational education. We have sought to provide a balance between skill-specific training and methodological training that is generic to the profession of vocational education. Again, what may have worked in the past will not be sufficient to meet the changing needs of the workforce in the coming years. In order to meet those needs, the research team believes training must be developed so that an individual teacher's effectiveness is not limited to only one domain; rather, teachers should be competent in the larger arena of the profession of vocational education so that multiple competencies, skills, and occupations can be taught to students.

The framework outlined here provides quality training for vocational educators in both effective and efficient ways. We have proposed a model that provides distinct competencies to different and new audiences in as convenient a manner as possible. Recredentialing would be based on substance rather than a checklist that has to be filled. To reiterate, the National Center has pointed out how critical it is that recredentialing be used as a careful method to insure that teachers gain technical and methodological update.

Our research clearly indicated a need for considerably more leadership in the training and development of educators. As a result, we call upon SBCCOE, in conjunction with other constituencies, to assume a much more vigorous leadership role in the professional development of vocational-education teachers and administrators. That leadership can be demonstrated by, and articulated through, the establishment of a comprehensive professional-development plan with programmatic offerings and with a recredentialing system based on specified objectives.

This plan creates a partnership among the adult learner, the provider of services, the educational systems in the region, and SBCCOE. The partnership will be able to evaluate services to determine the worth of the workshops and courses and create a direction for future training. Improved accountability on everyone's part will become the norm, and new opportunities for teachers and administrators will occur. The research team recognizes that professional development training is not a panacea to the many problems that confront vocational educators in the next decade. However, a model based on communication, effectiveness, and efficiency provides a good foundation from which to address the challenges that await us.

APPENDIXES

APPENDIX A

VOCATIONAL-EDUCATION TEACHER SURVEY INSTRUMENT

REFERENCES CITED IN TEXT

Cooke, Gwen (1985). Toward Excellence in Secondary Vocational Education: Improving Teaching. Columbus, Ohio: National Center for Research in Vocational Education.

Hamilton, James and M. Wonacott (1984). Updating Teachers for Tomorrow's Technology: A Strategy for Action. Columbus, Ohio: National Center for Research in Vocational Education.

Hill, Alberta (1971). Assumptions Underlying Inservice Vocational Teacher Education Programs. in R. Evans and D.Terry, eds. The Changing Role of Vocational Teacher Education. pp 72-85. Bloomington, Indiana: McKnight.

Philip Jackson (1973). Old Dogs and New Tricks. in L. Rubin, ed. Improving Inservice Education. pp.26-47. Boston: Allyn and Bacon.

Sherman, Susan, ed. (1983) Education for Tomorrow's Jobs. Washington, D.C.: National Academy Press.

Appendix A
Professional Development Questionnaire

In this questionnaire "professional-development activities" refer to activities that focus on improving or updating instructional, technical, or administrative skills. They include inservice, staff development, and other renewal activities that may be offered on a credit or non-credit basis. Please circle the most appropriate response in the questions that follow.

1. In what type of school do you work?

   1. Secondary 2. Postsecondary 01

2. Do you work on a full-time or part-time basis?

   1. Full-time 2. Part-time 02

3. What is your general area of expertise?

   1. Technical Education
   2. Trade & Industrial Education
   3. Business & Office Education
   4. Agricultural Education
   5. Marketing & Distributive Education
   6. Home Economics
   7. Special Needs
   8. Guidance
   9. Health Occupations

   03

4. How many years have you been teaching in a vocational education program?

   1. 1-2 years
   2. 3-5 years
   3. 6-10 years
   4. 11 or more years

   04

5. What types of professional-development activities have you participated in during the last two years? Circle all that apply.

   1. Update of occupational skills--internships in industry, business, etc. 05
   2. Conventions or conferences 06
   3. In-house workshops or seminars 07
   4. Correspondence courses 08
   5. Independent studies 09
   6. Courses at community college 10
   6. Courses on university campus 11
   7. Off-campus university courses 12
   8. On-site teacher visitation 13
   9. Other (please describe):

      _____ 14

      _____ 15

6. Do you have a written professional-development plan?

   1. Yes 2. No 16

7. Please rate the general utility of the following types of professional-development activities using the scale shown below. Leave an item blank if you have not had experience with the activity listed.

1. Very useful
2. Useful
3. Mediocre
4. Useless
5. Very useless

Activity	Rating	
1. Internships in industry	____	17
2. Conventions or conferences	____	18
3. In-house workshops or seminars	____	19
4. Correspondence courses	____	20
5. Independent studies	____	21
6. Courses at community college	____	22
7. Courses on university campus	____	23
8. Off-campus university courses	____	24
9. On-site teacher visitation	____	25
10. Other (please describe):		
_____	____	26
_____	____	27

8. Please describe the best professional-development activity in which you ever participated.

_____ 29
_____

9. Please describe the worst professional-development activity in which you ever participated.

_____ 31
_____

10. Please allocate 100 points to the following professional-development activities according to your professional-development needs.

	Points	
1. Instructional methodology	____	34
2. Technical skills update	____	37
3. Administrative skills (e.g., interpreting state & regulations, budgeting)	____	40
Total	100	

11. Please describe the three topics that could be covered by professional-development activities that would most benefit you (for example, curriculum planning, student evaluation, etc.).

1. _____ 42
2. _____ 44
3. _____ 46

12. Please describe the factors that you believe contribute most to the success of professional-development efforts.

1. _____ 48
2. _____ 50
3. _____ 52

13. When do you most prefer that professional-development activities be offered? (Circle one)

1. No preference
2. Fall
3. Winter
4. Spring
5. Summer

53

14. When do you prefer that professional-development activities be held? Please rank-order the following list.

____ Week-nights
____ Before school
____ After school
____ Weekends
____ During school holidays
____ No preference

54

15. Where do you prefer that professional-development activities be held? Please rank-order the following list.

___ University campus 55
___ Regionally (e.g., at a community college or secondary school) 56
___ Denver 57
___ In-house 58
___ Locally 59
___ No preference 60

16. Please note any additional comments, concerns, or criticisms you have about professional-development efforts.

(Optional) Please give your institution's zipcode: _____

Thank you very much

APPENDIX B

TEACHER SURVEY: RESPONSES TO QUESTION 11

Appendix B
Vocational-Education Teacher Survey
Responses to Question 11

Responses to Question 11:

1. Teacher evaluation
2. Classroom management
4. Curriculum development and planning
5. Student supervision and regulation
6. Competency based objectives/performance based-objectives
7. Student motivation and learning
8. Student organizations
9. Public-relations techniques to communicate and promote the value of vocational education to students and the community
10. Teacher idea exchange
11. Stress management
12. Testing non-readers
13. Time management
14. Developing advisory committees
15. Locating job-shadowing sites
16. Future technologies and new techniques
17. Current and future changes in the world of work
18. Exposure to current and new equipment
19. Industry requirements related to curriculum
20. Job-development techniques
21. Record keeping
22. Grant writing
23. TESL
24. Clinical supervisions
25. Microcomputers--word processing, software, applications, state-of-the-art technology
26. Maintaining current information on state requirements
27. Child development
28. Administrative skills
29. Training plans for on-the-job students
30. Working with other teachers
31. Drop-out prevention
32. Integrating college work with the real world of work
33. Course proposal writing
34. Development, planning, and follow-up of cooperative job sites

35. Computer-assisted instruction
36. Self-motivation/instructor motivation
37. Instructional evaluation
38. School finance and budgeting
39. Development of independent studies
40. Critical-thinking skills
41. Student-writing skills
42. Handicapped and Disadvantaged needs
43. Career planning
44. Screening for placement
45. Communicating with, motivating, and teaching adult learners
46. Dealing with and assessing the affective domain
47. Obtaining resources for curriculum development
48. Record keeping
49. Test development and test evaluation
50. Budgeting--planning, analysis, management
51. Marketing
52. Use of visual aids; development of multi-media approaches
53. Internship skills
54. Incorporating hi-tech in the curriculum
55. Student guidance and counseling
56. Textbook evaluation
57. Human relations
58. Assessing community needs
59. Enlisting assistance from community businesses
60. Recruitment methods
61. Job-seeking skills
62. Cooperative education
63. Personnel supervision
64. VICA leadership skills
65. Employer relations
66. Using advisory committees
67. Job-placement techniques
68. Assessing industry's needs
69. Techniques to reach low achievers
70. Instructor-student relations
71. Entrepreneurship
72. Nursing diagnosis
73. Individual study guides
74. Procedures for teaching reading skills
75. Student follow-up techniques

APPENDIX C

TEACHER SURVEY: RESPONSES TO QUESTION 12

Appendix C
Vocational-Education Teacher Survey
Responses to Question 12

Responses to Question 12:

1. Educational programs that count toward the M.S. degree
2. Good planning; organization; quality instruction; knowledge of topic; stimulating presentations; instructor sensitivity; instructor enthusiasm; instructor expertise; instructor communication skills; instructor experience; instructor experience in the field; clear goals; motivation
3. Commonality of terms
4. Sharing ideas, participant involvement, opportunities to interact with other teachers
5. Treating participants as professionals
6. Input from participants in determining in-service program
7. Teacher R&R
8. Grouping instructors according to needs
9. Receiving current information, relevant materials
10. Good notification of teachers
11. Personal committment
12. State staff
13. Training on up-to-date equipment
14. Presentations by practitioners
15. Workshops in industry facilities
16. Close proximity/convenience
17. Hands-on learning opportunities
18. Multi-media presentations
19. Work experience
20. Role playing
21. Practicality/Relevance--usefulness in classroom setting
22. Cost
23. Administrative support
24. Time allotment-release during school day
25. Length--less than 3 hours
26. Peer cooperation
27. Setting, environment
28. Timeliness--time during year when offered
29. Hard work
30. Case studies
31. Personal examples
32. Small groups

33. Availability and existence at local level
34. Specific course focus
35. Up-to-date
39. Question-answer format
40. Recredentialing credit
41. Distribution of useful materials
42. Peer evaluation

APPENDIX D

TEACHER SURVEY: COMMENTS TO QUESTION 16

Appendix D
Vocational-Education Teacher Survey
Comments to Question 16

Comments to Question 16:

1. It should be noted that technical teachers will be as current as the equipment on which they are teaching. Give the schools and teachers good equipment, and teachers will update as needed.

2. Districts must support in-service efforts with a commitment of release time and money.

3. Many of the professional-development courses are geared towards the secondary rather than the postsecondary instructor.

4. I believe my supervisor has not shown any interest in developing a professional-development plan with me.

5. Occupational instructors are generally occupationally current. However, I need in-service in classroom instructional techniques on an ongoing basis. I need help in the areas of classroom management, paperwork, and stress management.

6. Most courses are aimed at instructors generally, which makes them useless to the majority. Offerings need to meet specific needs.

7. We need new blood at our teacher-training universities. When we bring "experts" in they almost always are other educators. The true vocational experts are from industry.

8. When you work 12 months a year, you have very little time to go to a university for classes.

9. Time, day, and place don't matter as much as who is conducting the activity.

10. I would like information on classes being held.

11. I am really looking for experiences that will enhance my knowledge of the content that I teach in the classroom.

12. We can only have quality in education when the teacher-education programs improve! They should be current and up-to-date, and teachers should be given new materials, not information that was current 30 years ago.

13. Need to strengthen courses--make them worthwhile.

14. They need to be held for a purpose, and when qualified people are available.

15. Contact instructors about their needs. Don't have workshops just to take up time.

16. Usually not in-depth enough to be useful.

17. Postsecondary programs need to be split up into two areas: one for the colleges and universities; and one for the adult learner that has returned to vocational programs for refresher courses, or new career development programs.

18. Falling behind in industrial advancements is my biggest concern. Need incentives to work in industry at some point in time.

19. I would like to have the option of taking advanced courses in my field, as well as or instead of voc-ed type classes.

20. Please realize that some of us are 500 miles from CSU.

21. Have a plan and stick to it. Presenters should be organized.

22. They must be realistic. Have resources available to see and touch, and someone to talk with you. They have to be close and timely.

23. There are not enough courses offered in the southern part of the state.

24. There's always a way to invent a few credit hours when no one will work with you...pay a token tuition, like a bill for a certificate.

25. They need to be relevant to the times and location. Many are woefully out-of-date and too ivory tower.

26. I would like to see quality professional-development activities held in Colorado Springs. Its almost impossible for me to attend sessions in Denver.

27. Some of the classes I have taken from CSU, UNC, and CU have been "buying credits." Many are worthwhile, but I resent paying $110.

28. In-house activities can lead to in-breeding.

29. Not enough.

30. The right to attend CVA conference.

31. The concept is excellent--release time to attend is sub-poor.

32. This is an area that has never been touched on in any class, seminar, or during my career. This is extremely important. Professionalism can and does affect all teachers.

33. Business teachers must have more training in integrating the computer in all business courses.

34. We need notice of activities at least 2-3 weeks prior to their occurrence.

35. The people putting on the courses come across like they are doing you a big favor.

36. Administrators treat vocational educators like instructors, not technicians.

37. I might attend some of the courses offered in the Denver area in the evenings if they were scheduled for three hours or less. A 6-10 hour class is extremely hard to concentrate on.

38. I think that CVA is a waste. I think that some of the State Board meetings are a waste. I do like local workshops--especially when they carry college credit.

39. Workshops are usually not very interesting, and not very well presented. Academic people should not present vocational workshops. We are here to serve industry. We should know where they are today, not yesterday.

40. We need relevant materials in our classes, and expect relevant materials when we pay for college classes.

APPENDIX E

VOCATIONAL-EDUCATION ADMINISTRATOR SURVEY INSTRUMENT

Appendix E
Vocational Administrator Questionnaire

In this questionnaire "professional-development activities" refer to activities that focus on improving or updating instructional, technical, or administrative skills. They include inservice, staff development, and other renewal activities that may be offered on a credit or non-credit basis. Please circle the most appropriate response in the questions that follow.

1. In what type of school do you work?

   1. Secondary 2. Postsecondary 01

2. How many years have you served as an administrator for vocational education programs?

   1. 1-2 years
   2. 3-5 years
   3. 6-10 years
   4. 11 or more years 02

3. Are you a vocationally credentialed administrator?

   1. Yes 2. No 03

4. Do each of your full-time vocational education teachers have a written professional-development plan?

   1. Yes 2. No 3. Don't know 04

5. How do you feel about your ability to assist staff develop professional-development plans?

   1. Very strong
   2. Strong
   3. Medium
   4. Weak
   5. Very Weak 05

6. Please describe the three topics that could be covered by professional-development activities that would most benefit you in fulfilling your responsibilities as a vocational education administrator (for example, interpreting state & federal regulations, budgeting, program planning, etc.).

   1. _____ 07
   2. _____ 09
   3. _____ 11

7. When do you personally prefer that professional-development activities be offered? (Circle one)

   1. No preference
   2. Fall
   3. Winter
   4. Spring
   5. Summer 12

8. What is your preferred time for summer professional-development activities? (Circle one)

1. June
2. July
3. August
4. June & July
5. July & August

13

9. When do you personally prefer that professional-development activities be held? Please rank-order the following list.

____ Week-nights 15
____ Before school 17
____ After school 19
____ Weekends
____ During school holidays
____ No preference

Please turn over

10. Where do you personally prefer that professional-development activities be held? Please rank-order the following list.

____ University campus 20
____ Regionally (e.g., at a community college or secondary school) 21 22
____ Denver 23
____ Locally 25
____ No preference 26

11. Please describe the topics that have been covered by professional-development activities at your school during the last two years (for example, curriculum planning, student evaluation, etc.).

1. _____ 27
2. _____ 29
3. _____ 31
4. _____ 33
5. _____ 35
6. _____ 37

12. In what areas do you believe your vocational education teachers would most benefit from professional-development activities in the next few years? (Please allocate 100 points)

	Points	
1. Instructional methodology (e.g., curriculum planning, student evaluation, etc.)	____	40
2. Technical skills update	____	43
3. Administrative skills (e.g., interpreting state & federal regulations, budgeting)	____	46
Total	100	

13. Please describe the three topics that could be covered by professional-development activities that would most benefit your vocational education teachers (for example, curriculum planning, student evaluation, etc.).

1. _____ 48
2. _____ 50
3. _____ 52

14. Please describe the three factors that you believe contribute most to the success of professional-development efforts.

1. _____ 54
2. _____ 56
3. _____ 58

15. Do you feel that existing requirements for the renewal of a vocational credential improve instructor quality?

1. Yes 2. No 59

16 Please note any additional comments, concerns, or criticisms you have about professional-development efforts.

Thank you very much

APPENDIX F

ADMINISTRATOR SURVEY: RESPONSES TO QUESTION 6

Appendix F
Vocational-Education Administrator Survey
Responses to Question 6

Responses to Question 6:

1. Teacher evaluation
2. Curriculum development and planning
3. Competency-based objectives/performance-based objectives
4. Public-relations techniques to communicate and promote the value of vocational education to students and the community
5. Handicapped and disadvantaged needs
6. Record keeping
7. Budgeting--planning, analysis, management
8. Enlisting assistance from community businesses
9. Recruitment methods
10. VICA leadership skills
11. Using advisory committees
12. Planning for program expansion
13. Meeting district goals and objectives
14. Long-range planning and needs assessment
15. Program planning, development, and evaluation
16. Certification and credentialing requirements
17. Staff development

18. Integrating vocational education into other disciplines

19. Developing in-service activities

20. Advocating vocational education in colleges

21. New trends and current practices in vocational education

22. Motivating staff to achieve excellence

23. Handling personnel problems

24. Program networking

25. Administration evaluation

26. Administration orientation

27. Time management

28. New and future technologies

29. Current and future changes in the world of work

30. Grant writing

31. Clinical supervision and teaching

32. Microcomputers--word processing, software, applications, state-of-the-art technology

33. Maintaining current information on state requirements

34. Interpreting state and federal regulations

35. Instructional techniques, strategies, and methodology

APPENDIX G

ADMINISTRATOR SURVEY: RESPONSES TO QUESTION 11

Appendix G
Vocational-Education Administrator Survey
Responses to Question 11

Responses to Question 11:

1. Teacher evaluation

2. Curriculum development and planning
3. Competency-based objectives/performance-based objectives4. Public-relations techniques to communicate and promote the value of vocational education to students and the community

5. Stress management

6. Time management

7. Grant writing

8. TESL

9. Clinical supervisions
10. Microcomputers--word processing, software, applications, state-of-the-art technology
11. Computer assisted instruction

12. Critical thinking skills

13. Handicapped and disadvantaged needs

14. Dealing with and assessing the affective domain

15. Budgeting--planning, analysis, management

16. Use of visual aids; development of multi-media approaches

17. Student guidance and counseling

18. Human relations

19. VICA leadership skills
20. Using advisory committees
21. Classroom management and discipline
22. Entrepreneurship
23. Serving special needs
24. Long-range planning and needs assessment
25. Human-resources development
26. Program planning, development, and evaluation
27. Self-assessment
28. Motivating staff to achieve excellence
29. Vocational-education theory courses
30. Health
31. Safety and first aid
32. Quality circles
33. Teacher selection
34. Legal ramifications of teacher evaluation
35. Instructional techniques, strategies, and methodology

APPENDIX H

ADMINISTRATOR SURVEY: RESPONSES TO QUESTION 13

Appendix H
Vocational-Education Administrator Survey
Responses to Question 13

Responses to Question 13:

1. Curriculum development and planning
2. Competency-based objectives/performance-based objectives
3. Public-relations techniques to communicate and promote the value of vocational education to students and the community
4. Computer-assisted instruction
5. Handicapped and disadvantaged needs
6. Communicating with, teaching, and motivating adult learners
7. Dealing with and assessing the affective domain
8. Record keeping
9. Budgeting--planning, analysis, management
10. Use of visual aids; development of multi-media approachers
11. Student guidance and counseling
12. Recruitment methods
13. VICA leadership skills
14. Using advisory committees
15. Job-placement techniques
16. Classroom management and discipline
17. Marketing off-site training programs
18. Developing employment sites
19. Program planning, development, and evaluation
20. Integrating vocational education into other disciplines
21. Student tracking as they complete objectives

22. Regional VICA competition
23. New and current trends in vocational education
24. Motivating staff to achieve excellence
25. Open entry, open exit
26. Safety and first aid
27. Individualized instruction
28. Time management
29. Industry requirements related to curriculum
30. Grant writing
31. Technical skills update
32. Microcomputers--word processing, software, applications
33. Student evaluation and grading
34. Student motivation and learning
35. Instructional technologies, strategies, and methodology

APPENDIX I

ADMINISTRATOR SURVEY: RESPONSES TO QUESTION 14

Appendix I
Vocational-Education Administrator Survey
Responses to Question 14

Responses to Question 14:

1. Good planning; organization; quality instruction; knowledge of topic; stimulating presentations; instructor sensitivity; instructor enthusiasm; instructor expertise; instructor communication skills; instructor experience; instructor experience in the field; clear goals; motivation

2. Sharing ideas, participant involvement, opportunities to interact with other teachers

3. Input from participants in determining in-service program

4. Timeliness (time during year when offered)

5. Cost

6. Small groups

7. Availability at local level

8. Specific course focus

9. Recredentialling credit

10. Distribution of useful materials and hand-outs

11. In-service run by training companies

12. Follow-up studies done to assess use of information

13. Communications from state to local programs

14. Local leadership

15. Meets district goals

16. Teacher training courses

17. Compensation for participants

18. Good notification of teachers

19. Personal commitment
20. Workshops in industry facilities
21. Hands-on learning opportunities
22. Practicality and relevance to the classroom setting
23. Work experience
24. Administrative support
25. Length (less than 3 hours)
26. Case studies

APPENDIX J

ADMINISTRATOR SURVEY: COMMENTS TO QUESTION 16

Appendix J
Vocational-Education Administrator Survey
Comments to Question 16

1. Teachers need to keep up with instructional methods and techniques. Reinforcement of vocational philosophy. They do not need to be concerned with legislation. Please get away from hour requirements for programs and move toward conceptual objectives.

2. Provide time for participant involvement--two-way communication.

3. Rather than paying a local administrator/teacher to coordinate in-service activities, it would be better to reduce tuition and fees.

4. I personally feel that professional-development is much needed. However, one must be cautioned that the process is on-going and long-term--there is not a band-aid fix.

5. More emphasis should be placed on subject matter.

6. With the requirement that initial applicants for a vocational credential must pass a competency test, vocational directors are concerned that qualified applicants may become hard to find. Develop an in-service to assist applicants in preparing for the required tests. Administer those tests in the last session.

7. Not much is being done to help remote locations.

8. There seems to be very little for us out in the rural areas. The world does exist beyond the Denver, Greeley, Ft. Collins area. We need recredentialling and professional development for interested teachers during the school year out here where it is accessible. As a superintendent, I feel there is almost no help from SBCCOE or the universities for teachers in rural schools.

9. We should seek and provide reciprocity from other states.

10. Each area of recertification/certification has its own entity. It would be nice for all to work together.

11. Not enough activities. I only meet with my colleagues twice a year. Once at CVA and at the midwinter conference. We should have, at least, quarterly meetings--not CVA, but with local directors only. We need to meet more to share ideas and concerns. We also need to meet more with SBCCOE staff.

12. Too many people are receiving vocational credential that do not have a vocational background. Part-time work should not be included for credentialing.

13. Since the initial credentialing process directly affects the requirements for recredentialing and thus professional-development efforts--I would say that the NOCTI requirements are not appropriate. When employers and customers accept A.W.S., N.A.I.S.I.E, etc., certifications--why can't the state?

14. We <u>never</u> see any state people, nor feel <u>any</u> leadership from them. Start professional-development there before you come to us. We do well without you. Can you make a difference?

15. Too many work-experience hours required to be vocationally credentialled.

APPENDIX K

OUTLINE OF RECOMMENDATIONS

Appendix K

Outline of Recommendations

A. Delivery System Framework

1. Closer coordination with CDE, CCHE, and local schools.
2. Closer coordination with regional states (for example New Mexico and Trinidad, Alamosa, and Durango/Cortez).
3. Centers not evaluative, but support services.
4. Identify regional geographic areas at specific centers: Fort Collins, Denver, Pueblo, Grand Junction/Durango.
5. In-service is no longer the responsibility of Program Managers.
6. One full-time Director of In-service (DIS). (See below.)
7. One half-time Assistant Director -- curriculum/media center. (See below.)
8. Regional representatives are field-based and spend one-quarter to one-third of their time on in-service. (See below.) They are responsible to the DIS for that part of their work.
9. Roster of regional resource teachers identified. (See below.)
10. Advisory Board created/utilized. Assumption that locals know what is needed.
11. Utilize professional organizations and CVA to determine needs.
12. Utilize Colorado State University to approve credit.
13. Community Colleges are regional subcontractors.
14. SBCCOE requests money for technological update from state.
15. Credentialing office is moved to SBCCOE.
16. Curriculum library is set up at SBCCOE.

Director of In-Service (DIS) Responsibilities

- In-service coordination with state agencies, e.g. teleconferencing.
- Coordination with in-service in other states.
- Creates three year plan of in-service offerings -- theme based.
- Creates/promotes local, regional, state, regional business ties.
- Responsible for development and analysis of evaluative questionaire after every in-service.
- Responsible for development and analysis of state-wide questionaire that will help determine three-year plan.
- Chairs Advisory Board.
- Creates integrated newsletter in conjunction with CVA.
- Markets/advertises workshops.
- Locates grants and coordinates cooperative funding arrangements.
- Contracts out services - RFP's.
- Develops six content areas of delivery (See C).
- Identifies and coordinates resource teachers.
- Approves requests for technological update.

Assistant Director Responsibilities

- Acts as curriculum clearinghouse agent.
- Responsible for curriculum based RFPs.
- Locates curriculum materials from business.
- Locates out-of-state curriculum materials.
- Creates relationships with organizations such as VETCS.
- Creates relationships with other states' curriculum libraries.
- Utilizes existing state Technical Advisory Committee for accumulation of curricular materials.

Regional Representative Responsibilities

- Helps develop three year state plan.
- Identifies resource teachers.
- Identifies local instructors.
- Acts as link between region and DIS/SBCCOE.
- Locates regional curriculum.
- Markets/advertises regional in-service.
- Creates regional business ties.
- Processes technological-update requests.
- Identifies regional communication vehicles (e.g. newspapers).

Resource Teacher Responsibilities

- Teaches classes that other teachers watch.
- Consults with new teachers (ongoing workshops, homework), part-time teachers, and regular teachers and evaluates content competencies. (See E.)
- Provides input on three year plan.
- Teaches VE 270.
- Participates in two-day summer workshop on responsibilities.

B. Constituencies Served

1. Recognition of unique audiences; simply by quantity, secondary/AVS are primary audience.
2. Community College -- Administrators and teachers.
3. Part-time teachers.
4. New teachers.
5. Recognition that although only approximately 9% of audience sits outside of front range, it is those rural superintendents/teachers who are in greatest need of professional development.
6. State Board staff.
7. New audiences -SDA, JTPA, CBO, etc.

C. Content

1. twice each year a two day regional workshop is offered.
2. One two-day, statewide workshop offered in Denver toward end of year on Friday evening/Saturday.
3. No in-service is offered without a specific objective attached to it, except the Denver workshop.
4. Course offerings are PBTE-based.
5. One month of technological update mandatory every 3 years.

Regional Workshops

- Content is method-based. The majority of offerings are not segmented by discipline.
- Menu of offerings based on three-year plan.
- One credit offered for each workshop.
- Cost based on "instructor of record"/audit fee.
- Mandatory for teachers to attend four of six workshops over three-year-period.
- Professional-development plan needs greater emphasis.
- Modeled on PBTE.
- Atmosphere needs to be created for dialogue with other teachers

Denver Workshop

- Content is leadership/trend based. Philosophy with a practical edge.
- Business community utilized.
- Credit offered.
- Cost based on "instructor of record"/audit fee.
- Two Denver workshops can count toward 1 workshop needed.

Catalogue Workshops

- DIS will have a set list of 'mini-workshops' that can be offered throughout the state for institutions that want update.
- No credit offered. No requirements. No cost to participants.

Specified Constituency Workshops

- Workshops developed for specified audiences on a state-wide basis one to two times per year at convenient locations.
- Credit offered. Tuition based on "instructor of record"/audit.

Course Offerings

- PBTE based, resource-teacher evaluated.
- Credit offered.
- Cost based on "instructor of record"/audit fee.
- Three semester units needed every three years.
- Option to take all six workshops and two Denver workshops in lieu of three semester course.

Technological Update

- One month of technological update needed by all teachers once every three years.
- Content is functionally based - emphasis on teaching. - Stipend provided to teacher.
- Credit offered.
- Teacher, administration, regional representative, and DIS determine internship.

D. Delivery Roles

1. Contract out agenda -- encourage regionalism.
2. Utilize all available qualified instructors at lowest cost.
3. Necessarily, community colleges will play an increased role.

E. Evaluation

1. Every workshop/course offered will be evaluated.
2. Second year of every three year cycle a state-wide evaluation will be disseminated.
3. Resource teachers will observe teachers to look for competencies addressed in workshops/courses.
4. "Vital Signs" need to be evaluated on a system-wide basis.
5. Advisory Board and professional organizations of CVA provide input and evaluation.

APPENDIX L

RECOMMENDED RECREDENTIALING REQUIREMENTS

Appendix L

Recommended Recredentialing Requirements

1. Timeline for acquiring a recredential is three years.
2. Individual must take four of six regional workshops over a three-year period.
3. Two state-wide workshops could substitute for one regional workshop.
4. Three semester hours of a PBTE-based course needed every three years.
5. Two additional regional workshops and two Denver workshops could substitute for PBTE-based course.
6. One month of technological update needed every three years. Additional internships can not substitute for other requirements.